

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 04:38:08 ON 29 MAY 2007

FILE 'REGISTRY' ENTERED AT 04:38:25 ON 29 MAY 2007  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

**STRUCTURE FILE UPDATES:** 28 MAY 2007 **HIGHEST RN** 935999-19-2  
**DICTIONARY FILE UPDATES:** 28 MAY 2007 **HIGHEST RN** 935999-19-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

**TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006**

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>  
Uploading C:\posullivan\183zza.str

L1 STRUCTURE UPLOADED

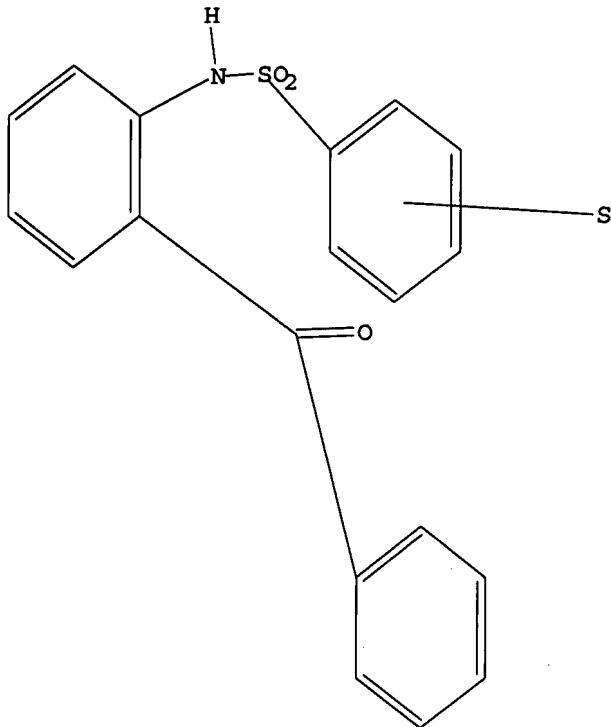
=>  
Uploading C:\posullivan\183zzb.str

## L2 STRUCTURE UPLOADED

=>  
Uploading C:\posullivan\183zzc.str

L3 STRUCTURE UPLOADED

=> d l1  
L1 HAS NO ANSWERS  
L1 STR



Structure attributes must be viewed using STN Express query preparation.

```
=> d 12
L2 HAS NO ANSWERS
L2          STR
```

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

```
=> d 13
L3 HAS NO ANSWERS
L3          STR
```

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

```
=> s 11
SAMPLE SEARCH INITIATED 04:48:25 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      24 TO ITERATE
```

```
100.0% PROCESSED      24 ITERATIONS          0 ANSWERS
SEARCH TIME: 00.00.01
```

```
FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                           BATCH   **COMPLETE**
PROJECTED ITERATIONS:    187 TO      773
PROJECTED ANSWERS:        0 TO       0
```

L4 0 SEA SSS SAM L1

```
=> search l1
ENTER TYPE OF SEARCH (SSS), CSS, FAMILY, OR EXACT:.
ENTER SCOPE OF SEARCH (SAMPLE), FULL, RANGE, OR SUBSET:full
FULL SEARCH INITIATED 04:48:36 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -      385 TO ITERATE

100.0% PROCESSED      385 ITERATIONS          1 ANSWERS
SEARCH TIME: 00.00.01

L5      1 SEA SSS FUL L1

=> s 12
SAMPLE SEARCH INITIATED 04:48:41 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      24 TO ITERATE

100.0% PROCESSED      24 ITERATIONS          0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:    187 TO      773
PROJECTED ANSWERS:        0 TO       0

L6      0 SEA SSS SAM L2

=> search l2
ENTER TYPE OF SEARCH (SSS), CSS, FAMILY, OR EXACT:.
ENTER SCOPE OF SEARCH (SAMPLE), FULL, RANGE, OR SUBSET:full
FULL SEARCH INITIATED 04:48:47 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -      385 TO ITERATE

100.0% PROCESSED      385 ITERATIONS          5 ANSWERS
SEARCH TIME: 00.00.01

L7      5 SEA SSS FUL L2

=> s 13
SAMPLE SEARCH INITIATED 04:48:52 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      24 TO ITERATE

100.0% PROCESSED      24 ITERATIONS          0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:    187 TO      773
PROJECTED ANSWERS:        0 TO       0

L8      0 SEA SSS SAM L3

=> search l3
ENTER TYPE OF SEARCH (SSS), CSS, FAMILY, OR EXACT:.
ENTER SCOPE OF SEARCH (SAMPLE), FULL, RANGE, OR SUBSET:full
FULL SEARCH INITIATED 04:49:05 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -      385 TO ITERATE

100.0% PROCESSED      385 ITERATIONS          0 ANSWERS
SEARCH TIME: 00.00.01

L9      0 SEA SSS FUL L3

=> s 15 or 17
L10     6 L5 OR L7
```

|                      |  |            |         |
|----------------------|--|------------|---------|
| => file caplus       |  | SINCE FILE | TOTAL   |
| COST IN U.S. DOLLARS |  | ENTRY      | SESSION |
| FULL ESTIMATED COST  |  | 523.05     | 523.26  |

FILE 'CAPLUS' ENTERED AT 04:49:26 ON 29 MAY 2007  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 29 May 2007 VOL 146 ISS 23  
 FILE LAST UPDATED: 28 May 2007 (20070528/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> s 110  
 L11 5 L10

=> d 111 fbib ab hitstr 1-5

L11 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2005:547250 CAPLUS  
 DN 143:77956  
 TI Preparation of bis-aryl sulfonamides as potent modulators of chemokine receptors  
 IN Ungashe, Solomon; Wei, Zheng; Wright, J. J.; Pennell, Andrew; Premack, Brett; Schall, Thomas  
 PA USA  
 SO U.S. Pat. Appl. Publ., 56 pp., Cont.-in-part of U.S. Ser. No. 716,183.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 5

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE        |
|----|---|------|----------|-----------------|-------------|
| PI | US 2005137179   | A1   | 20050623 | US 2004-848836  | 20040519    |
|    |   |      |          | US 2002-427670P | P 20021118  |
|    |   |      |          | US 2003-716183  | A2 20031118 |
|    | US 2004167113   | A1   | 20040826 | US 2003-716183  | 20031118    |
|    |   |      |          | US 2002-427670P | P 20021118  |
|    | CA 2505590  | A1   | 20041007 | CA 2003-2505590 | 20031118    |
|    |   |      |          | US 2002-427670P | P 20021118  |
|    |   |      |          | WO 2003-US37035 | W 20031118  |
|    | AU 2003303942   | A1   | 20041018 | AU 2003-303942  | 20031118    |
|    |   |      |          | US 2002-427670P | P 20021118  |
|    |   |      |          | WO 2003-US37035 | W 20031118  |
|    | EP 1567486  | A2   | 20050831 | EP 2003-816012  | 20031118    |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,<br>IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK |      |          | US 2002-427670P | P 20021118  |

|   |    |          |   |   |
|---|----|----------|---|---|
| JP 2006510724   | T  | 20060330 | WO 2003-US37035<br>JP 2004-569975<br>US 2002-427670P<br>WO 2003-US37035 | W 20031118<br>20031118<br>P 20021118<br>W 20031118  |
| WO 2005112916   | A2 | 20051201 | WO 2005-US17501   | 20050518  |
| WO 2005112916   | A3 | 20060216 |   |   |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,<br>CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,<br>GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,<br>LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,<br>NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,<br>SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,<br>ZA, ZM, ZW |    |          |   |   |
| RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,<br>AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,<br>EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,<br>RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,<br>MR, NE, SN, TD, TG  |    |          |   |   |
| JP 2007077166   | A  | 20070329 | US 2004-848836<br>JP 2006-311085<br>US 2002-427670P<br>JP 2004-553842   | A 20040519<br>20061117<br>P 20021118<br>A3 20031117 |

PATENT FAMILY INFORMATION:

FAN 2004:453170

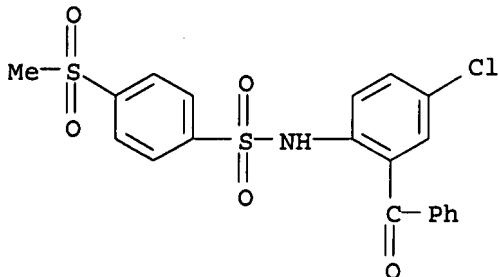
|  | PATENT NO.    | KIND     | DATE  | APPLICATION NO.                      | DATE     |
|--|---------------|----------|---|--------------------------------------|----------|
| PI   | WO 2004046092 | A2       | 20040603  | WO 2003-US36766                      | 20031117 |
|  | WO 2004046092 | A3       | 20040715  |                                      |          |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,<br>CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,<br>GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC,<br>LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO,<br>NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,<br>TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW |               |          |   |                                      |          |
| RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,<br>BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,<br>ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,<br>TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |               |          |   |                                      |          |
| CA 2500492   | A1            | 20040603 | US 2002-427670P                                       | P 20021118                           |          |
| AU 2003298661  | A1            | 20040615 | CA 2003-2500492<br>US 2002-427670P<br>WO 2003-US36766 | 20031117<br>P 20021118<br>W 20031117 |          |
| EP 1562940   | A2            | 20050817 | AU 2003-298661<br>US 2002-427670P<br>WO 2003-US36766  | 20031117<br>P 20021118<br>W 20031117 |          |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,<br>IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK   |               |          | EP 2003-796416<br>US 2002-427670P<br>WO 2003-US36766  | 20031117<br>P 20021118<br>W 20031117 |          |
| CN 1711257   | A             | 20051221 | CN 2003-80103335                                      | 20031117                             |          |
| JP 2006506438  | T             | 20060223 | US 2002-427670P<br>JP 2004-553842                     | P 20021118<br>20031117               |          |
| CA 2505590   | A1            | 20041007 | US 2002-427670P<br>WO 2003-US36766                    | P 20021118<br>W 20031117             |          |
| WO 2004085384  | A2            | 20041007 | CA 2003-2505590<br>US 2002-427670P                    | 20031118<br>P 20021118               |          |
| WO 2004085384  | A3            | 20050203 | WO 2003-US37035                                       | W 20031118                           |          |
| WO 2004085384  | A8            | 20050324 |   |                                      |          |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,<br>CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,<br>GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC,   |               |          |   |                                      |          |

LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO,  
 NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,  
 TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,  
 BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
 ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,  
 TR, BF, BJ, CF, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 US 2002-427670P P 20021118  
 AU 2003303942 A1 20041018 AU 2003-303942 20031118  
 US 2002-427670P P 20021118  
 WO 2003-US37035 W 20031118  
 EP 1567486 A2 20050831 EP 2003-816012 20031118  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK  
 US 2002-427670P P 20021118  
 WO 2003-US37035 W 20031118  
 CN 1738796 A 20060222 CN 2003-80108668 20031118  
 US 2002-427670P P 20021118  
 JP 2006510724 T 20060330 JP 2004-569975 20031118  
 US 2002-427670P P 20021118  
 WO 2003-US37035 W 20031118  
 ZA 2005003663 A 20051030 ZA 2005-3663 20050506  
 US 2002-427670P P 20021118  
 JP 2007077166 A 20070329 JP 2006-311085 20061117  
 US 2002-427670P P 20021118  
 JP 2004-553842 A3 20031117  
**FAN 2005:1259748**  

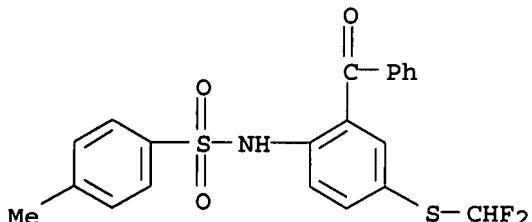
| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE        |
|---|------|----------|-----------------|-------------|
| PI WO 2005112925  | A1   | 20051201 | WO 2005-US16815 | 20050513    |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,<br>CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,<br>GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,<br>LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,<br>NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,<br>SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,<br>ZA, ZM, ZW |      |          |                 |             |
| RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,<br>AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,<br>EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,<br>RO, SE, SI, SK, TR, BF, BJ, CF, CI, CM, GA, GN, GQ, GW, ML,<br>MR, NE, SN, TD, TG  |      |          |                 |             |
| US 2005137193   | A1   | 20050623 | US 2004-846241  | A 20040513  |
|   |      |          | US 2004-846241  | 20040513    |
|   |      |          | US 2002-427670P | P 20021118  |
|   |      |          | US 2003-716170  | A1 20031117 |
| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE        |
| PI US 2006111351  | A1   | 20060525 | US 2005-255163  | 20051020    |
|   |      |          | US 2002-427670P | P 20021118  |
|   |      |          | US 2003-716170  | A2 20031117 |
|   |      |          | US 2004-846241  | A2 20040513 |
| US 2004171654   | A1   | 20040902 | US 2003-716170  | 20031117    |
| US 6939885  | B2   | 20050906 | US 2002-427670P | P 20021118  |
| CA 2505590  | A1   | 20041007 | CA 2003-2505590 | 20031118    |
|   |      |          | US 2002-427670P | P 20021118  |
|   |      |          | WO 2003-US37035 | W 20031118  |
| AU 2003303942   | A1   | 20041018 | AU 2003-303942  | 20031118    |
|   |      |          | US 2002-427670P | P 20021118  |
|   |      |          | WO 2003-US37035 | W 20031118  |
| EP 1567486  | A2   | 20050831 | EP 2003-816012  | 20031118    |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  |      |          |                 |             |

|  |       |          |   |             |
|--|-------|----------|---|-------------|
|  |       |          | IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK                        |             |
|  |       |          | US 2002-427670P   | P 20021118  |
|  |       |          | WO 2003-US37035   | W 20031118  |
| JP 2006510724  | T     | 20060330 | JP 2004-569975  | 20031118    |
|  |       |          | US 2002-427670P   | P 20021118  |
|  |       |          | WO 2003-US37035   | W 20031118  |
| US 2005137193  | A1    | 20050623 | US 2004-846241  | 20040513    |
|  |       |          | US 2002-427670P   | P 20021118  |
|  |       |          | US 2003-716170  | A1 20031117 |
| US 2005165067  | A1    | 20050728 | US 2005-46565   | 20050127    |
|  |       |          | US 2002-427670P   | P 20021118  |
|  |       |          | US 2003-716170  | A1 20031117 |
| JP 2007077166  | A     | 20070329 | JP 2006-311085  | 20061117    |
|  |       |          | US 2002-427670P   | P 20021118  |
|  |       |          | JP 2004-553842  | A3 20031117 |
| FAN 2007:90902   |       |          |   |             |
| PATENT NO.   | KIND  | DATE     | APPLICATION NO.   | DATE        |
| -----  | ----- | -----    | -----   | -----       |
| PI US 2007021466   | A1    | 20070125 | US 2006-486395  | 20060713    |
|  |       |          | US 2002-427670P   | P 20021118  |
|  |       |          | US 2003-716170  | A1 20031117 |
|  |       |          | US 2004-846241  | A2 20040513 |
| US 2004171654  | A1    | 20040902 | US 2003-716170  | 20031117    |
| US 6939885   | B2    | 20050906 | US 2002-427670P   | P 20021118  |
| CA 2505590   | A1    | 20041007 | CA 2003-2505590   | 20031118    |
|  |       |          | US 2002-427670P   | P 20021118  |
|  |       |          | WO 2003-US37035   | W 20031118  |
| AU 2003303942  | A1    | 20041018 | AU 2003-303942  | 20031118    |
|  |       |          | US 2002-427670P   | P 20021118  |
|  |       |          | WO 2003-US37035   | W 20031118  |
| EP 1567486   | A2    | 20050831 | EP 2003-816012  | 20031118    |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,<br>IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK   |       |          |   |             |
|  |       |          | US 2002-427670P   | P 20021118  |
|  |       |          | WO 2003-US37035   | W 20031118  |
| JP 2006510724  | T     | 20060330 | JP 2004-569975  | 20031118    |
|  |       |          | US 2002-427670P   | P 20021118  |
|  |       |          | WO 2003-US37035   | W 20031118  |
| US 2005137193  | A1    | 20050623 | US 2004-846241  | 20040513    |
|  |       |          | US 2002-427670P   | P 20021118  |
|  |       |          | US 2003-716170  | A1 20031117 |
| US 2005165067  | A1    | 20050728 | US 2005-46565   | 20050127    |
|  |       |          | US 2002-427670P   | P 20021118  |
|  |       |          | US 2003-716170  | A1 20031117 |
| JP 2007077166  | A     | 20070329 | JP 2006-311085  | 20061117    |
|  |       |          | US 2002-427670P   | P 20021118  |
|  |       |          | JP 2004-553842  | A3 20031117 |
| OS MARPAT 143:77956  |       |          |   |             |
| AB The title compds. I [L = CO, S, SO, SO <sub>2</sub> ; X = halo, alkyl, alkenyl, etc.; Y = halo, CN, NO <sub>2</sub> , etc.; Z = halo, alkyl, alkenyl, etc.] that act as potent antagonists of chemokine receptors (CCR9), were prepared. Thus, reacting (2-amino-5-chlorophenyl)(phenyl)methanone with 4-tert-butylbenzenesulfonyl chloride afforded II which showed IC <sub>50</sub> < 100 nM in either or both of the chemotaxis assay and calcium mobilization assays. The compds. I are useful in pharmaceutical compns., methods for the treatment of chemokine receptor-mediated diseases, and as controls in assays for the identification of chemokine antagonists. |       |          |   |             |
| IT 855595-53-8P  |       |          |   |             |
| RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)   |       |          |   |             |
|  |       |          | (preparation of N-aryl benzenesulfonamides as chemokine receptor CCR9 modulators) |             |

RN 855595-53-8 CAPLUS  
CN Benzenesulfonamide, N-(2-benzoyl-4-chlorophenyl)-4-(methylsulfonyl)- (9CI)  
(CA INDEX NAME)



L11 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1981:442562 CAPLUS  
DN 95:42562  
TI 2-Amino-5-mercaptopbenzophenone  
AU Gordiichuk, G. N.; Andronati, S. A.; Yavorskii, A. S.  
CS Odessa, USSR  
SO Khimicheskaya Promyshlennost, Seriya: Reaktivy i Osobo Chistye  
Veshchestva (1980), (6), 5-6  
CODEN: KSRVDF  
DT Journal  
LA Russian  
AB 5,2-HS(H2N)C6H3COPh was prepared in 63% yield by treatment of  
5,2-F2CHS(p-MeC6H4SO2NH)C6H3COPh with H2SO4.  
IT 78211-76-4  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with sulfuric acid)  
RN 78211-76-4 CAPLUS  
CN Benzenesulfonamide, N-[2-benzoyl-4-[(difluoromethyl)thio]phenyl]-4-methyl-  
(9CI) (CA INDEX NAME)



L11 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1969:450004 CAPLUS  
DN 71:50004  
TI 7-(Alkyl- or arylthio)-5-phenyl-3H-1,4-benzodiazepin-2(1H)-ones  
IN Keller, Oscar; Steiger, Norbert; Sternbach, Leo H.  
PA Hoffmann-La Roche Inc.  
SO U.S., 9 pp. Division of U.S. 3121077, U.S. 3121075, and U.S. 3121103  
CODEN: USXXAM  
DT Patent

LA English

FAN.CNT 3

| PATENT NO.    | KIND  | DATE     | APPLICATION NO. | DATE     |
|---------------|-------|----------|-----------------|----------|
| -----         | ----- | -----    | -----           | -----    |
| PI US 3442946 | A     | 19690506 | US 1963-331904  | 19631219 |

|            |   |          |                |            |
|------------|---|----------|----------------|------------|
| US 3371085 | A | 19680227 | CS 1960-7357   | A 19611029 |
|            |   |          | US 1961-154921 | 19611120   |
|            |   |          | CH 1960-13489  | A 19601202 |
|            |   |          | CH 1960-13490  | A 19601202 |
|            |   |          | CH 1960-13491  | A 19601202 |
|            |   |          | CH 1960-13492  | A 19601202 |
|            |   |          | CH 1960-13493  | A 19601202 |
|            |   |          | CH 1960-13494  | A 19601202 |
|            |   |          | CH 1960-13495  | A 19601202 |
|            |   |          | CS 1960-7357   | A 19611020 |

PATENT FAMILY INFORMATION:

FAN 1969:37850

|    | PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE       |
|----|------------|------|----------|-----------------|------------|
| PI | US 3402171 | A    | 19680917 | US 1963-326337  | 19631127   |
|    |            |      |          | CH 1960-13489   | A 19601202 |
|    |            |      |          | CH 1960-13492   | A 19601202 |
|    |            |      |          | CH 1960-13494   | A 19601202 |
|    | US 3371085 | A    | 19680227 | US 1961-154921  | 19611120   |
|    |            |      |          | CH 1960-13489   | A 19601202 |
|    |            |      |          | CH 1960-13490   | A 19601202 |
|    |            |      |          | CH 1960-13491   | A 19601202 |
|    |            |      |          | CH 1960-13492   | A 19601202 |
|    |            |      |          | CH 1960-13493   | A 19601202 |
|    |            |      |          | CH 1960-13494   | A 19601202 |
|    |            |      |          | CH 1960-13495   | A 19601202 |
|    |            |      |          | CS 1960-7357    | A 19611020 |

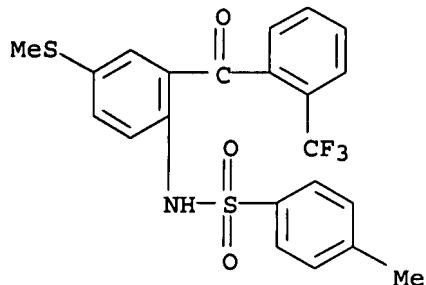
FAN 1970:445551

|    | PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE       |
|----|------------|------|----------|-----------------|------------|
| PI | US 3515755 | A    | 19700602 | US 1968-737861  | 19680618   |
|    |            |      |          | CH 1960-13489   | A 19601202 |
|    |            |      |          | CH 1960-13490   | A 19601202 |
|    |            |      |          | CH 1960-13491   | A 19601202 |
|    |            |      |          | CH 1960-13492   | A 19601202 |
|    |            |      |          | CH 1960-13493   | A 19601202 |
|    |            |      |          | CH 1960-13494   | A 19601202 |
|    |            |      |          | CH 1960-13495   | A 19601202 |
|    | US 3371085 | A    | 19680227 | US 1961-154921  | 19611120   |
|    |            |      |          | CH 1960-13489   | A 19601202 |
|    |            |      |          | CH 1960-13490   | A 19601202 |
|    |            |      |          | CH 1960-13491   | A 19601202 |
|    |            |      |          | CH 1960-13492   | A 19601202 |
|    |            |      |          | CH 1960-13493   | A 19601202 |
|    |            |      |          | CH 1960-13494   | A 19601202 |
|    |            |      |          | CH 1960-13495   | A 19601202 |
|    |            |      |          | CS 1960-7357    | A 19611020 |
|    | US 3412086 | A    | 19681119 | US 1964-406906  | 19641027   |
|    |            |      |          | CH 1960-13490   | A 19601202 |
|    |            |      |          | CH 1960-13492   | A 19601202 |
|    |            |      |          | CH 1960-13493   | A 19601202 |
|    |            |      |          | CH 1960-13494   | A 19601202 |
|    |            |      |          | CH 1960-13495   | A 19601202 |
|    | US 3427304 | A    | 19690211 | US 1967-625638  | 19670324   |
|    |            |      |          | CH 1960-13489   | A 19601202 |
|    |            |      |          | CH 1960-13490   | A 19601202 |
|    |            |      |          | CH 1960-13491   | A 19601202 |
|    |            |      |          | CH 1960-13492   | A 19601202 |
|    |            |      |          | CH 1960-13493   | A 19601202 |
|    |            |      |          | CH 1960-13494   | A 19601202 |
|    |            |      |          | CH 1960-13495   | A 19601202 |

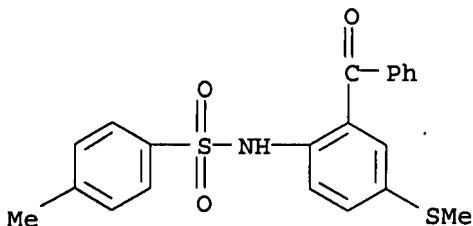
AB Division of U.S. 3,121,103 (CA 61: 5671f). The disclosure is the same but the claims are different.

IT 2317-54-6P 23193-90-0P 23280-11-7P

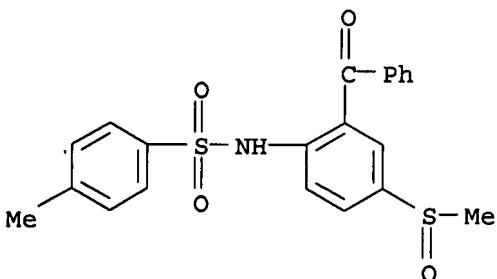
RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 2317-54-6 CAPLUS  
 CN p-Toluenesulfonanilide, 4'-(methylthio)-2'-( $\alpha,\alpha,\alpha$ -trifluoro-o-toluoyl)- (7CI, 8CI) (CA INDEX NAME)



RN 23193-90-0 CAPLUS  
 CN p-Toluenesulfonanilide, 2'-benzoyl-4'-(methylthio)- (7CI, 8CI) (CA INDEX NAME)



RN 23280-11-7 CAPLUS  
 CN p-Toluenesulfonanilide, 2'-benzoyl-4'-(methylsulfinyl)- (7CI, 8CI) (CA INDEX NAME)



L11 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1964:432524 CAPLUS  
 DN 61:32524  
 OREF 61:5672d-h,5673a-c  
 TI Aminobenzodiazepines  
 IN Keller, Oscar; Steiger, Norbert; Sternbach, Leo H.  
 PA Hoffmann-La Roche Inc.  
 SO 9 pp.  
 DT Patent  
 LA Unavailable  
 PATENT NO. KIND DATE APPLICATION NO. DATE  
 -----

|    |            |          |                |          |
|----|------------|----------|----------------|----------|
| PI | US 3121075 | 19640211 | US 1962-197853 | 19620528 |
|    |            |          | CS             | 19611020 |

AB The title compds. are useful as sedatives, tranquilizers, muscle relaxants, and anticonvulsants. 2-Aminobenzophenone (30 g.) and 40 g. NaCNS in 100 cc. MeOH, cooled to 0° was treated dropwise with a cold solution of 9.5 cc. Br in 35 cc. cold MeOH (saturated with NaBr) and the mixture stirred (cold) for an addnl. 0.5 hr. to give the 5-thiocyanato derivative (I), m. 83-4° (dilute EtOH). I (39 g.) in 200 cc. EtOH was heated to 50° on a steam bath, treated alternately in portions with 55 g. Na<sub>2</sub>S<sub>2</sub>O<sub>4</sub> and 250 cc. 10% NaOH warmed to 80°, cooled to 40°, treated dropwise with 20 cc. Me<sub>2</sub>SO<sub>4</sub>, and stirred 1 hr. at room temperature to give 2-amino-5-methylthiobenzophenone (II), m. 47-9° (petr. ether). II (42 g.) was heated with 40 g. glycine Et ester-HCl (III) in 75 cc. C<sub>5</sub>H<sub>5</sub>N for 6 hrs. at 118-20° to give IIIa (R = Me), (IV) m. 216-18° (Me<sub>2</sub>CO). Similarly, I with EtBr gave 2-amino-5-ethylthiobenzophenone which with III gave IIIa (R = Et), m. 273° (MeCN-EtOH). Also, I with BuBr gave 2-amino-5-butylthiobenzophenone, which with III and HCl gave IIIa.HCl (R = Bu), m. 247-9°. I with ethylene bromohydrin gave 2-amino-5-hydroxyethylthiobenzophenone which with III and HCl gave IIIa.HCl (R = HOCH<sub>2</sub>CH<sub>2</sub>), m. 252-3° (decomposition). IV with 30% H<sub>2</sub>O<sub>2</sub> gave the sulfoxide (V), m. 254° (decomposition). p-MeSO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>.HCl with BzCl and ZnCl<sub>2</sub> gave 2-amino-5-methylsulfonylbenzophenone, m. 159-61°, which with III gave IV sulforte, m. 256-8°. 2-Amino-5-chlorobenzophenone with SCl gave 4-benzyl-6-chloro-2,3,1-benzothiazathiolium chloride, which with Me<sub>2</sub>SO<sub>4</sub> gave 2-amino-5-chloro-3-methylthiobenzophenone. This with III gave 7-chloro-9-methylthio-5-phenyl-3H-1,4-benzo-diazepin-2(1H)-one, m. 189-91°. II with NH<sub>2</sub>OH.HCl gave the oxime which with ClCH<sub>2</sub>COCl gave 6-methylthio-2-chloromethyl-4-phenylquinazoline 3-oxide (VI), m. 155-6° (CH<sub>2</sub>Cl<sub>2</sub>). VI with MeNH<sub>2</sub> gave 7-methylthio-2-methylamino-5-phenyl-3H1,4-benzodiazepine 4-oxide, m. 245-6°. Similarly, VI with NH<sub>3</sub> gave the 2-amino analog. VI with N NaOH gave IV 4-oxide (VII), m. 191-3°. VII with PCl<sub>3</sub> gave IV. V with SOCl<sub>2</sub> gave IIIa.HCl (R = ClCH<sub>2</sub>), m. 258-60° (decomposition) (MeOH). Also prepared were 7-methylthio-5-(2-chlorophenyl)-3H-1,4-benzodiazepin-2(1H)-one, m. 221-3° (EtOH); 7-methylthio-5-(o-trifluoromethylphenyl)-3H-1,4-benzodiazepin-2(1H)-one, m. 199200° (C<sub>6</sub>H<sub>6</sub>); 1-methyl derivative of IV, m. 35-45° (hexane); 7-methylthio-4,5-dihydro-5-phenyl-3H-1,4-benzodiazepin-2(1H)-one, m. 150.5-2.5° (EtOH) (the 1,4-dimethyl derivative m. 96-8°); 4,5-dihydro-1,4-dimethyl-7-methylsulfinyl-5-phenyl-3H-1,4-benzodiazepin-2(1H)-one, m. 160-1°; 7-chloro-5-(2-methylthiophenyl)-3H-1,4-benzodiazepin-2(1H)-one, m. 184-5°; 7-ethylsulfinyl-5-phenyl-3H-1,4-benzodiazepin-2(1H)-one, m. 195-6°; 7-( $\alpha$ -chloroethylthio)-5-phenyl-3H-1,4-benzodiazepin-2(1H)-one HCl, 'm. 236-8° (free base m. 195-6°). The following intermediates were also prepared: 2-tosylamino-5-methylthiobenzophenone, m. 119-20° (the 5-methylsulfinyl derivative m. 168-9°); 2-amino-5-methylsulfinylbenzophenone, m. 124-6°; 5-thiocyanato-2-amino-2'-chlorobenzophenone, m. 117-19°; 2-bromoacetamido-5-methylthio-2'-chlorobenzophenone, m. 106-8° (the 2-p-tosylamino analog m. 125-6°); 2-chloro-2'-nitrobenzophenone, m. 76-9° (the 2'-amino analog m. 58-60°); 5-thiocyanato-2'-trifluoromethyl-2-aminobenzophenone, m. 117-18°; 5-methylthio-2'-trifluoromethyl-2-bromoacetamido benzophenone, m. 104-5° (the 2-aminoacetamido analog m. 77-8°; the 2-p-tosylamino analog m. 122-3°); 2-amino-2'-trifluoromethylbenzophenone, m. 94-6°; 2-bromoacetamido-5-methylthiobenzophenone, m. 114-15°; 2'-benzoyl-2-bromo-4'-bromomethylthioacetanilide, m. 144-6°; 2-amino-5-chloro-2'-fluorobenzophenone, m. 94-5° (the 2'-methylthio analog m. 100-100.5°); 2-bromoacetamido-5-chloro-2'-methylthiobenzophenone, m. 107-8° (the 2-aminoacetamido analog m. 125-6°).

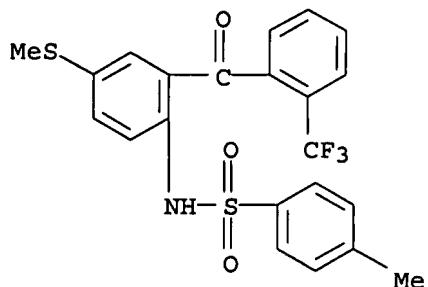
IT 2317-54-6P, p-Toluenesulfonanilide, 4'-(methylthio)-2'-

( $\alpha,\alpha,\alpha$ -trifluoro- $\alpha$ -toluoyl)- 23193-90-0P,  
p-Toluenesulfonanilide, 2'-benzoyl-4'-(methylthio)- 23280-11-7P,  
p-Toluenesulfonanilide, 2'-benzoyl-4'-(methylsulfinyl)-  
94864-13-8P, p-Toluenesulfonanilide, 2'-( $\alpha$ -chlorobenzoyl)-4'-(methylthio)-

RL: PREP (Preparation)  
(preparation of)

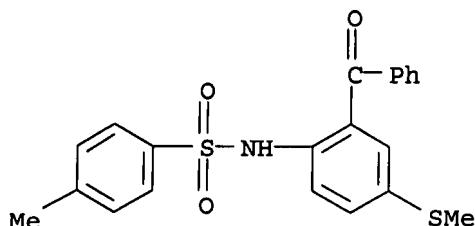
RN 2317-54-6 CAPLUS

CN p-Toluenesulfonanilide, 4'-(methylthio)-2'-( $\alpha,\alpha,\alpha$ -trifluoro- $\alpha$ -toluoyl)- (7CI, 8CI) (CA INDEX NAME)



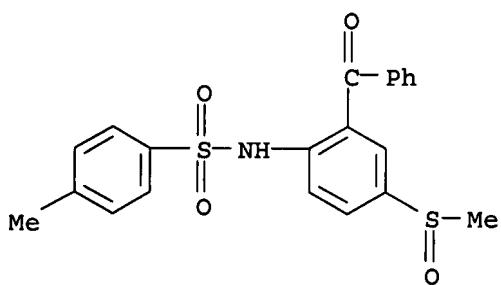
RN 23193-90-0 CAPLUS

CN p-Toluenesulfonanilide, 2'-benzoyl-4'-(methylthio)- (7CI, 8CI) (CA INDEX NAME)



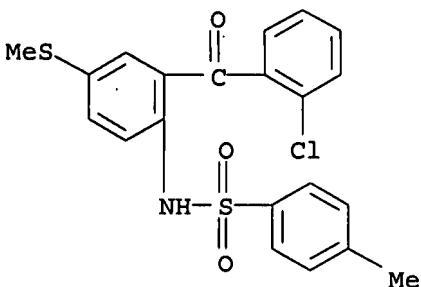
RN 23280-11-7 CAPLUS

CN p-Toluenesulfonanilide, 2'-benzoyl-4'-(methylsulfinyl)- (7CI, 8CI) (CA INDEX NAME)



RN 94864-13-8 CAPLUS

CN p-Toluenesulfonanilide, 2'-( $\alpha$ -chlorobenzoyl)-4'-(methylthio)- (7CI) (CA INDEX NAME)



L11 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1964:432523 CAPLUS

DN 61:32523

OREF 61:5671f-h,5672a-d

TI Benzodiazepines

IN Keller, Oscar; Steiger, Norbert; Sternbach, Leo H.

PA Hoffman-La Roche Inc.

SO 9 pp.

DT Patent

LA Unavailable

| PATENT NO.    | KIND  | DATE     | APPLICATION NO. | DATE     |
|---------------|-------|----------|-----------------|----------|
| -----         | ----- | -----    | -----           | -----    |
| PI US 3121103 |       | 19640211 | US 1962-197842  | 19620528 |
|               |       |          | CS              | 19611020 |
| FR M2615      |       |          | FR              |          |
| GB 986873     |       |          | GB              |          |

OS MARPAT 61:32523

AB To a suspension of 30 g. 2-aminobenzophenone and 40 g. NaSCN in 100 ml. MeOH, cooled to 0° was added dropwise a cold solution of 28.5 g. Br in 35 ml. MeOH saturated with NaBr, the mixture stirred 30 min., poured into 1 l. cold H<sub>2</sub>O, and neutralized with 110 ml. 20% aqueous Na<sub>2</sub>CO<sub>3</sub> to give 2-amino-5-thiocyanatobenzophenone (I), m. 83-4°. To a suspension of 39 g. I in 200 ml. EtOH heated to 55° was added, alternately, portionwise, 55 g. Na<sub>2</sub>S<sub>2</sub>O<sub>4</sub> and 250 ml. 10% aqueous NaOH, the mixture heated to 80°, cooled to 40°, 27 g. Me<sub>2</sub>SO<sub>4</sub> added dropwise, the mixture stirred 1 hr. at room temperature, the EtOH distilled, the aqueous phase diluted with 700

ml. H<sub>2</sub>O and extracted with 4 300-ml. portions C<sub>6</sub>H<sub>6</sub>, and the C<sub>6</sub>H<sub>6</sub> phase worked up to give 2-amino-5-methylthiobenzophenone (II), m. 47-9°. A mixture of 42 g. II, 40 g. glycine Et ester-HCl, and 75 ml. C<sub>5</sub>H<sub>5</sub>N was heated 6 hrs. at 118-20°, with replacement of C<sub>5</sub>H<sub>5</sub>N as it boiled off, and the product worked up to give 7-methylthio-5-phenyl-3H-1,4-benzodiazepin-2(1H)-one, m. 21618°. Similarly were prepared the following III (R given): 7-ethylthio (HCl salt m. 273°) (MeCN-EtOH); 7-butylthio (HCl salt m. 247-9°); 7-hydroxyethylthio (HCl salt m. 252-3°) (decomposition); 7-methylsulfinyl (HCl salt m. 254°) (decomposition); 7-methylsulfonyl, m. 256-8°; 7-chloro-9-methylthio, m. 189-91°; 1-methyl-7-methylthio, m. 35-45°; 7-chloromethylthio (HCl salt m. 258-60°) (decomposition); 7-methylthio-4,5-dihydro, m. 150.52.5°; 7-methylthio-1,4-dimethyl-4,5-dihydro, m. 96-8°; 4,5-dihydro-1,4-dimethyl-7-methylsulfinyl, m. 160-1°; 7-methylthio (4-oxide), m. 191-3°; 1-methyl-7-methylthio (4-oxide); 7-ethylsulfinyl, m. 195-6°; 7-( $\alpha$ -chloroethylthio) (HCl salt m. 236-8°); and 7-( $\alpha$ -chloroethylthio), m. 195-6°. Also prepared were 2amino-5-methylsulfonylbenzophenone, m. 159-61°; 2-amino-5methylthiobenzophenone oxime, m. 149-50°; 6-methylthio-2chloromethyl-4-phenylquinazoline 3-oxide, m. 155-6°; 7-methylthio-2-methylamino-5-phenyl-3H-1,4-benzodiazepine 4-oxide, m. 245-6°; 7-methylthio-2-amino-5-phenyl-3H-1,4-benzodiazepine 4-oxide; 2-tosylamino-5-methylthiobenzophenone, m. 119-20°;

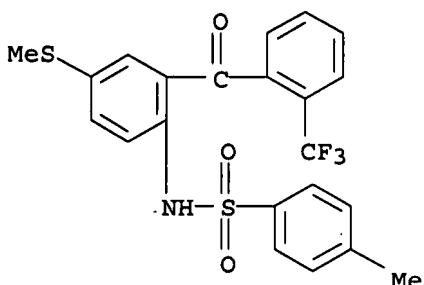
2-tosylamino-5-methylsulfinylbenzophenone, m. 168-9°;  
 2-amino-5-methylsulfinylbenzophenone, m. 124-6°;  
 5-thiocyanato2-amino-2'-chlorobenzophenone, m. 117-19°;  
 5-methylthio-2-amino-2'-chlorobenzophenone; 2-bromoacetamido-5-methylthio2'-chlorobenzophenone, m. 106-8°; 7-methylthio-5-(2-chlorophenyl)-3H-1,4-benzodiazepin-2(1H)-one, m. 221-3°; 2-(tosylamino)-5-methylthio-2'-chlorobenzophenone, m. 125-6°; 2-chloro-2'-nitrobenzophenone, m. 76-9°; 2-amino-2'-chlorobenzophenone, m. 58-60°; 5-thiocyanato-2'-trifluoromethyl-2aminobenzophenone, m. 117-18°; 5-methylthio-2'-trifluoromethyl-2-aminobenzophenone; 5-methylthio-2'-trifluoromethyl2-bromoacetamidobenzophenone, m. 104-5°; 5-methylthio-2'trifluoromethyl-2-aminoacetamidobenzophenone, m. 77-8°; 7methylthio-5-(o-trifluoromethylphenyl)-3H-1,4-benzodiazepin2(1H)-one, m. 199-200°; 2-(p-tosylamino)-5-methylthio-2'-trifluoromethylbenzophenone, m. 122-3° 2-amino-2'-trifluoromethylbenzophenone, m. 94-6°; 2-bromoacetamido-5-methylthiobenzophenone, m. 114-15°; 2'-benzoyl-2-bromo-4'-bromomethylthioacetanilide, m. 144-6°; 2-amino-5-chloro-2'-fluorobenzophenone, m. 94-5°; 2-amino-5-chloro-2'-methylthiobenzophenone, m. 100-100.5°; 2-bromoacetamido-2'-methylthio-5-chlorobenzophenone, m. 107-8°; 2-aminoacetamido-2'methylthio-5-chlorobenzophenone, m. 125-6°; and 7-chloro-5(2-methylthiophenyl)-3H-1,4-benzodiazepin-2(1H)-one, m. 1845°.

IT 2317-54-6P, p-Toluenesulfonanilide, 4'-(methylthio)-2'-( $\alpha,\alpha,\alpha$ -trifluoro-o-toluoyl)- 23193-90-0P,  
 p-Toluenesulfonanilide, 2'-benzoyl-4'-(methylthio)- 23280-11-7P,  
 p-Toluenesulfonanilide, 2'-benzoyl-4'-(methylsulfinyl)-  
 94864-13-8P, p-Toluenesulfonanilide, 2'-(o-chlorobenzoyl)-4'-(methylthio)-

RL: PREP (Preparation)  
(preparation of)

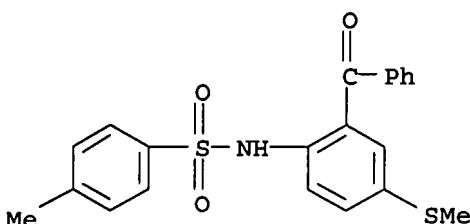
RN 2317-54-6 CAPLUS

CN p-Toluenesulfonanilide, 4'-(methylthio)-2'-( $\alpha,\alpha,\alpha$ -trifluoro-o-toluoyl)- (7CI, 8CI) (CA INDEX NAME)

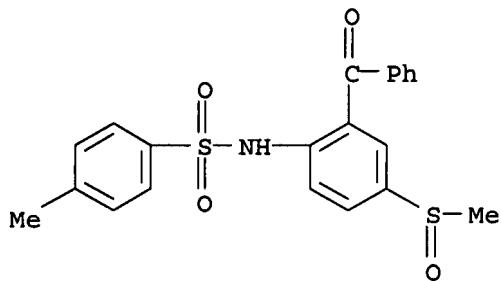


RN 23193-90-0 CAPLUS

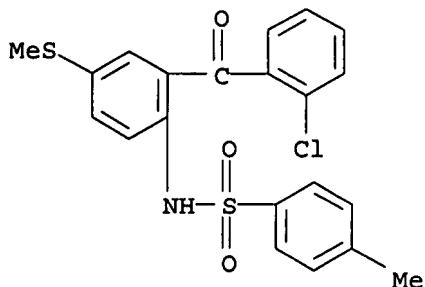
CN p-Toluenesulfonanilide, 2'-benzoyl-4'-(methylthio)- (7CI, 8CI) (CA INDEX NAME)



RN 23280-11-7 CAPLUS  
CN p-Toluenesulfonanilide, 2'-benzoyl-4'-(methylsulfinyl)- (7CI, 8CI) (CA INDEX NAME)



RN 94864-13-8 CAPLUS  
CN p-Toluenesulfonanilide, 2'-(o-chlorobenzoyl)-4'-(methylthio)- (7CI) (CA INDEX NAME)



=>  
Uploading C:\posullivan\183zzd.str

L12. STRUCTURE UPLOADED

=>  
Uploading C:\posullivan\183zze.str

L13. STRUCTURE UPLOADED

=>  
Uploading C:\posullivan\183zzf.str

L14. STRUCTURE UPLOADED

=> s l12  
REGISTRY INITIATED  
Substance data SEARCH and crossover from CAS REGISTRY in progress...  
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

SAMPLE SEARCH INITIATED 05:03:20 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 91 TO ITERATE

100.0% PROCESSED

91 ITERATIONS

1 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 1248 TO 2392  
PROJECTED ANSWERS: 1 TO 80

L15 1 SEA SSS SAM L12

L16 1 L15

=> file reg  
COST IN U.S. DOLLARS. SINCE FILE TOTAL  
ENTRY SESSION  
FULL ESTIMATED COST 0.47 575.24  
  
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL  
ENTRY SESSION  
CA SUBSCRIBER PRICE 0.00 -3.90

FILE 'REGISTRY' ENTERED AT 05:03:24 ON 29 MAY 2007  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 28 MAY 2007 HIGHEST RN 935999-19-2  
DICTIONARY FILE UPDATES: 28 MAY 2007 HIGHEST RN 935999-19-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> d his

(FILE 'HOME' ENTERED AT 04:38:08 ON 29 MAY 2007)

FILE 'REGISTRY' ENTERED AT 04:38:25 ON 29 MAY 2007  
L1 STRUCTURE uploaded  
L2 STRUCTURE uploaded  
L3 STRUCTURE uploaded  
L4 0 S L1  
L5 1 SEARCH L1 FULL  
L6 0 S L2  
L7 5 SEARCH L2 FULL  
L8 0 S L3  
L9 0 SEARCH L3 FULL  
L10 6 S L5 OR L7

FILE 'CAPLUS' ENTERED AT 04:49:26 ON 29 MAY 2007

L11           5 S L10  
L12           STRUCTURE UPLOADED  
L13           STRUCTURE UPLOADED  
L14           STRUCTURE UPLOADED  
              S L12

FILE 'REGISTRY' ENTERED AT 05:03:20 ON 29 MAY 2007  
L15           1 S L12

FILE 'CAPLUS' ENTERED AT 05:03:20 ON 29 MAY 2007  
L16           1 S L15

FILE 'REGISTRY' ENTERED AT 05:03:24 ON 29 MAY 2007

=> s l13  
SAMPLE SEARCH INITIATED 05:03:44 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED -       91 TO ITERATE

100.0% PROCESSED       91 ITERATIONS                           17 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:   ONLINE    \*\*COMPLETE\*\*  
                          BATCH     \*\*COMPLETE\*\*  
PROJECTED ITERATIONS:    1248 TO    2392  
PROJECTED ANSWERS:       93 TO      587

L17           17 SEA SSS SAM L13

=> s l14  
SAMPLE SEARCH INITIATED 05:03:47 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED -       91 TO ITERATE

100.0% PROCESSED       91 ITERATIONS                           0 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:   ONLINE    \*\*COMPLETE\*\*  
                          BATCH     \*\*COMPLETE\*\*  
PROJECTED ITERATIONS:    1248 TO    2392  
PROJECTED ANSWERS:       0 TO       0

L18           0 SEA SSS SAM L14

=> search l12  
ENTER TYPE OF SEARCH (SSS), CSS, FAMILY, OR EXACT:.  
ENTER SCOPE OF SEARCH (SAMPLE), FULL, RANGE, OR SUBSET:full  
FULL SEARCH INITIATED 05:03:59 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED -       1737 TO ITERATE

100.0% PROCESSED       1737 ITERATIONS                       2 ANSWERS  
SEARCH TIME: 00.00.01

L19           2 SEA SSS FUL L12

=> search l13  
ENTER TYPE OF SEARCH (SSS), CSS, FAMILY, OR EXACT:.  
ENTER SCOPE OF SEARCH (SAMPLE), FULL, RANGE, OR SUBSET:full  
FULL SEARCH INITIATED 05:04:09 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED -       1737 TO ITERATE

100.0% PROCESSED       1737 ITERATIONS                       287 ANSWERS  
SEARCH TIME: 00.00.01

L20           287 SEA SSS FUL L13

```
=> s l14
SAMPLE SEARCH INITIATED 05:04:19 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 91 TO ITERATE

100.0% PROCESSED 91 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 1248 TO 2392
PROJECTED ANSWERS: 0 TO 0

L21 0 SEA SSS SAM L14

=> search l14
ENTER TYPE OF SEARCH (SSS), CSS, FAMILY, OR EXACT:.
ENTER SCOPE OF SEARCH (SAMPLE), FULL, RANGE, OR SUBSET:full
FULL SEARCH INITIATED 05:04:28 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1737 TO ITERATE

100.0% PROCESSED 1737 ITERATIONS 18 ANSWERS
SEARCH TIME: 00.00.01

L22 18 SEA SSS FUL L14

=> d his

(FILE 'HOME' ENTERED AT 04:38:08 ON 29 MAY 2007)

FILE 'REGISTRY' ENTERED AT 04:38:25 ON 29 MAY 2007
L1 STRUCTURE uploaded
L2 STRUCTURE uploaded
L3 STRUCTURE uploaded
L4 0 S L1
L5 1 SEARCH L1 FULL
L6 0 S L2
L7 5 SEARCH L2 FULL
L8 0 S L3
L9 0 SEARCH L3 FULL
L10 6 S L5 OR L7

FILE 'CAPLUS' ENTERED AT 04:49:26 ON 29 MAY 2007
L11 5 S L10
L12 STRUCTURE uploaded
L13 STRUCTURE uploaded
L14 STRUCTURE uploaded
S L12

FILE 'REGISTRY' ENTERED AT 05:03:20 ON 29 MAY 2007
L15 1 S L12

FILE 'CAPLUS' ENTERED AT 05:03:20 ON 29 MAY 2007
L16 1 S L15

FILE 'REGISTRY' ENTERED AT 05:03:24 ON 29 MAY 2007
L17 17 S L13
L18 0 S L14
L19 2 SEARCH L12 FULL
L20 287 SEARCH L13 FULL
L21 0 S L14
L22 18 SEARCH L14 FULL

=> s l19 or l20 or l22
L23 305 L19 OR L20 OR L22
```

|  |  |            |         |
|--|--|------------|---------|
| => file caplus                             |  | SINCE FILE | TOTAL   |
| COST IN U.S. DOLLARS                       |  | ENTRY      | SESSION |
| FULL ESTIMATED COST                        |  | 515.85     | 1091.09 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) |  | SINCE FILE | TOTAL   |
| CA SUBSCRIBER PRICE                        |  | ENTRY      | SESSION |
|  |  | 0.00       | -3.90   |

FILE 'CAPLUS' ENTERED AT 05:04:52 ON 29 MAY 2007  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 29 May 2007 VOL 146 ISS 23  
 FILE LAST UPDATED: 28 May 2007 (20070528/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> s 123  
 L24 21 L23

=> d 124 fbib ab hitstr 1-21

L24 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2005:547250 CAPLUS  
 DN 143:77956  
 TI Preparation of bis-aryl sulfonamides as potent modulators of chemokine receptors  
 IN Ungashe, Solomon; Wei, Zheng; Wright, J. J.; Pennell, Andrew; Premack, Brett; Schall, Thomas  
 PA USA  
 SO U.S. Pat. Appl. Publ., 56 pp., Cont.-in-part of U.S. Ser. No. 716,183.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 5

| PATENT NO.       | KIND | DATE     | APPLICATION NO. | DATE        |
|------------------|------|----------|-----------------|-------------|
| PI US 2005137179 | A1   | 20050623 | US 2004-848836  | 20040519    |
|                  |      |          | US 2002-427670P | P 20021118  |
|                  |      |          | US 2003-716183  | A2 20031118 |
| US 2004167113    | A1   | 20040826 | US 2003-716183  | 20031118    |
|                  |      |          | US 2002-427670P | P 20021118  |
| CA 2505590       | A1   | 20041007 | CA 2003-2505590 | 20031118    |
|                  |      |          | US 2002-427670P | P 20021118  |
|                  |      |          | WO 2003-US37035 | W 20031118  |
| AU 2003303942    | A1   | 20041018 | AU 2003-303942  | 20031118    |
|                  |      |          | US 2002-427670P | P 20021118  |

|   |    |          |                 |             |
|---|----|----------|-----------------|-------------|
|   |    |          | WO 2003-US37035 | W 20031118  |
| EP 1567486  | A2 | 20050831 | EP 2003-816012  | 20031118    |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,<br>IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK  |    |          |                 |             |
|   |    |          | US 2002-427670P | P 20021118  |
|   |    |          | WO 2003-US37035 | W 20031118  |
| JP 2006510724   | T  | 20060330 | JP 2004-569975  | 20031118    |
|   |    |          | US 2002-427670P | P 20021118  |
|   |    |          | WO 2003-US37035 | W 20031118  |
| WO 2005112916   | A2 | 20051201 | WO 2005-US17501 | 20050518    |
| WO 2005112916   | A3 | 20060216 |                 |             |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,<br>CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,<br>GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,<br>LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,<br>NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,<br>SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,<br>ZA, ZM, ZW |    |          |                 |             |
| RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,<br>AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,<br>EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,<br>RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,<br>MR, NE, SN, TD, TG  |    |          |                 |             |
| JP 2007077166   | A  | 20070329 | US 2004-848836  | A 20040519  |
|   |    |          | JP 2006-311085  | 20061117    |
|   |    |          | US 2002-427670P | P 20021118  |
|   |    |          | JP 2004-553842  | A3 20031117 |

**PATENT FAMILY INFORMATION:**

FAN 2004:453170

|  | PATENT NO.    | KIND     | DATE             | APPLICATION NO. | DATE     |
|--|---------------|----------|------------------|-----------------|----------|
| PI   | WO 2004046092 | A2       | 20040603         | WO 2003-US36766 | 20031117 |
|  | WO 2004046092 | A3       | 20040715         |                 |          |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,<br>CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,<br>GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC,<br>LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO,<br>NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,<br>TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW |               |          |                  |                 |          |
| RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,<br>BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,<br>ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,<br>TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |               |          |                  |                 |          |
| CA 2500492   | A1            | 20040603 | US 2002-427670P  | P 20021118      |          |
|  |               |          | CA 2003-2500492  | 20031117        |          |
|  |               |          | US 2002-427670P  | P 20021118      |          |
|  |               |          | WO 2003-US36766  | W 20031117      |          |
| AU 2003298661  | A1            | 20040615 | AU 2003-298661   | 20031117        |          |
|  |               |          | US 2002-427670P  | P 20021118      |          |
|  |               |          | WO 2003-US36766  | W 20031117      |          |
| EP 1562940   | A2            | 20050817 | EP 2003-796416   | 20031117        |          |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,<br>IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK   |               |          |                  |                 |          |
|  |               |          | US 2002-427670P  | P 20021118      |          |
|  |               |          | WO 2003-US36766  | W 20031117      |          |
| CN 1711257   | A             | 20051221 | CN 2003-80103335 | 20031117        |          |
|  |               |          | US 2002-427670P  | P 20021118      |          |
| JP 2006506438  | T             | 20060223 | JP 2004-553842   | 20031117        |          |
|  |               |          | US 2002-427670P  | P 20021118      |          |
|  |               |          | WO 2003-US36766  | W 20031117      |          |
| CA 2505590   | A1            | 20041007 | CA 2003-2505590  | 20031118        |          |
|  |               |          | US 2002-427670P  | P 20021118      |          |
|  |               |          | WO 2003-US37035  | W 20031118      |          |
| WO 2004085384  | A2            | 20041007 | WO 2003-US37035  | 20031118        |          |

|               |   |          |  |  |
|---------------|---|----------|--|--|
| WO 2004085384 | A3  | 20050203 |  |  |
| WO 2004085384 | A8  | 20050324 |  |  |
| W:            | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,<br>CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,<br>GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,<br>LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO,<br>NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,<br>TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW |          |  |  |
| RW:           | BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,<br>BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,<br>ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,<br>TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |  |  |

|               |    |          |                 |            |
|---------------|----|----------|-----------------|------------|
| AU 2003303942 | A1 | 20041018 | US 2002-427670P | P 20021118 |
|               |    |          | AU 2003-303942  | 20031118   |
|               |    |          | US 2002-427670P | P 20021118 |
|               |    |          | WO 2003-US37035 | W 20031118 |

|            |   |          |                 |            |
|------------|---|----------|-----------------|------------|
| EP 1567486 | A2  | 20050831 | EP 2003-816012  | 20031118   |
| R:         | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,<br>IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK |          | US 2002-427670P | P 20021118 |
|            |   |          | WO 2003-US37035 | W 20031118 |

|               |   |          |                  |             |
|---------------|---|----------|------------------|-------------|
| CN 1738796    | A | 20060222 | CN 2003-80108668 | 20031118    |
|               |   |          | US 2002-427670P  | P 20021118  |
| JP 2006510724 | T | 20060330 | JP 2004-569975   | 20031118    |
|               |   |          | US 2002-427670P  | P 20021118  |
|               |   |          | WO 2003-US37035  | W 20031118  |
| ZA 2005003663 | A | 20051030 | ZA 2005-3663     | 20050506    |
|               |   |          | US 2002-427670P  | P 20021118  |
| JP 2007077166 | A | 20070329 | JP 2006-311085   | 20061117    |
|               |   |          | US 2002-427670P  | P 20021118  |
|               |   |          | JP 2004-553842   | A3 20031117 |

| FAN   | 2005:1259748  | KIND   | DATE            | APPLICATION NO. | DATE       |
|-------|---------------|--|-----------------|-----------------|------------|
|       | PATENT NO.    |  |                 |                 |            |
| ----- | -----         | -----  | -----           | -----           | -----      |
| PI    | WO 2005112925 | A1   | 20051201        | WO 2005-US16815 | 20050513   |
|       | W:            | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,<br>CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,<br>GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,<br>LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,<br>NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,<br>SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,<br>ZA, ZM, ZW |                 |                 |            |
|       | RW:           | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,<br>AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,<br>EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,<br>RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,<br>MR, NE, SN, TD, TG   |                 |                 |            |
|       | US 2005137193 | A1   | 20050623        | US 2004-846241  | A 20040513 |
|       |               |  | US 2004-846241  |                 | 20040513   |
|       |               |  | US 2002-427670P | P 20021118      |            |
|       |               |  | US 2003-716170  | A1 20031117     |            |

| FAN   | 2006:493928   | KIND  | DATE     | APPLICATION NO. | DATE        |
|-------|---------------|-------|----------|-----------------|-------------|
|       | PATENT NO.    |       |          |                 |             |
| ----- | -----         | ----- | -----    | -----           | -----       |
| PI    | US 2006111351 | A1    | 20060525 | US 2005-255163  | 20051020    |
|       |               |       |          | US 2002-427670P | P 20021118  |
|       |               |       |          | US 2003-716170  | A2 20031117 |
|       |               |       |          | US 2004-846241  | A2 20040513 |
|       | US 2004171654 | A1    | 20040902 | US 2003-716170  | 20031117    |
|       | US 6939885    | B2    | 20050906 | US 2002-427670P | P 20021118  |
|       | CA 2505590    | A1    | 20041007 | CA 2003-2505590 | 20031118    |
|       |               |       |          | US 2002-427670P | P 20021118  |
|       |               |       |          | WO 2003-US37035 | W 20031118  |

|  |    |          |                 |             |
|--|----|----------|-----------------|-------------|
| AU 2003303942  | A1 | 20041018 | AU 2003-303942  | 20031118    |
|  |    |          | US 2002-427670P | P 20021118  |
|  |    |          | WO 2003-US37035 | W 20031118  |
| EP 1567486   | A2 | 20050831 | EP 2003-816012  | 20031118    |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,<br>IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK |    |          | US 2002-427670P | P 20021118  |
|  |    |          | WO 2003-US37035 | W 20031118  |
| JP 2006510724  | T  | 20060330 | JP 2004-569975  | 20031118    |
|  |    |          | US 2002-427670P | P 20021118  |
|  |    |          | WO 2003-US37035 | W 20031118  |
| US 2005137193  | A1 | 20050623 | US 2004-846241  | 20040513    |
|  |    |          | US 2002-427670P | P 20021118  |
|  |    |          | US 2003-716170  | A1 20031117 |
| US 2005165067  | A1 | 20050728 | US 2005-46565   | 20050127    |
|  |    |          | US 2002-427670P | P 20021118  |
|  |    |          | US 2003-716170  | A1 20031117 |
| JP 2007077166  | A  | 20070329 | JP 2006-311085  | 20061117    |
|  |    |          | US 2002-427670P | P 20021118  |
|  |    |          | JP 2004-553842  | A3 20031117 |

FAN 2007:90902

PATENT NO.

-----

KIND

DATE

APPLICATION NO.

DATE

|  |    |          |                 |             |
|--|----|----------|-----------------|-------------|
| PI US 2007021466   | A1 | 20070125 | US 2006-486395  | 20060713    |
|  |    |          | US 2002-427670P | P 20021118  |
|  |    |          | US 2003-716170  | A1 20031117 |
|  |    |          | US 2004-846241  | A2 20040513 |
| US 2004171654  | A1 | 20040902 | US 2003-716170  | 20031117    |
| US 6939885   | B2 | 20050906 |                 |             |
| CA 2505590   | A1 | 20041007 | US 2002-427670P | P 20021118  |
|  |    |          | CA 2003-2505590 | 20031118    |
|  |    |          | US 2002-427670P | P 20021118  |
|  |    |          | WO 2003-US37035 | W 20031118  |
| AU 2003303942  | A1 | 20041018 | AU 2003-303942  | 20031118    |
|  |    |          | US 2002-427670P | P 20021118  |
|  |    |          | WO 2003-US37035 | W 20031118  |
| EP 1567486   | A2 | 20050831 | EP 2003-816012  | 20031118    |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,<br>IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK |    |          | US 2002-427670P | P 20021118  |
|  |    |          | WO 2003-US37035 | W 20031118  |
| JP 2006510724  | T  | 20060330 | JP 2004-569975  | 20031118    |
|  |    |          | US 2002-427670P | P 20021118  |
|  |    |          | WO 2003-US37035 | W 20031118  |
| US 2005137193  | A1 | 20050623 | US 2004-846241  | 20040513    |
|  |    |          | US 2002-427670P | P 20021118  |
|  |    |          | US 2003-716170  | A1 20031117 |
| US 2005165067  | A1 | 20050728 | US 2005-46565   | 20050127    |
|  |    |          | US 2002-427670P | P 20021118  |
|  |    |          | US 2003-716170  | A1 20031117 |
| JP 2007077166  | A  | 20070329 | JP 2006-311085  | 20061117    |
|  |    |          | US 2002-427670P | P 20021118  |
|  |    |          | JP 2004-553842  | A3 20031117 |

OS MARPAT 143:77956

AB The title compds. I [L = CO, S, SO, SO<sub>2</sub>; X = halo, alkyl, alkenyl, etc.; Y = halo, CN, NO<sub>2</sub>, etc.; Z = halo, alkyl, alkenyl, etc.] that act as potent antagonists of chemokine receptors (CCR9), were prepared. Thus, reacting (2-amino-5-chlorophenyl)(phenyl)methanone with 4-tert-butylbenzenesulfonyl chloride afforded II which showed IC<sub>50</sub> < 100 nM in either or both of the chemotaxis assay and calcium mobilization assays. The compds. I are useful in pharmaceutical compns., methods for the treatment of chemokine receptor-mediated diseases, and as controls in assays for the identification of chemokine antagonists.

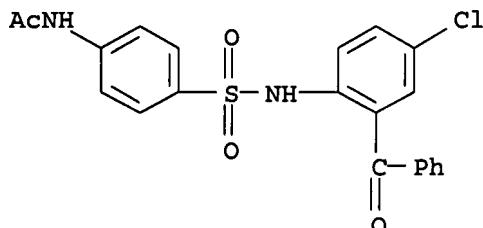
IT 392305-40-7P 855595-43-6P 855595-65-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of N-aryl benzenesulfonamides as chemokine receptor CCR9 modulators)

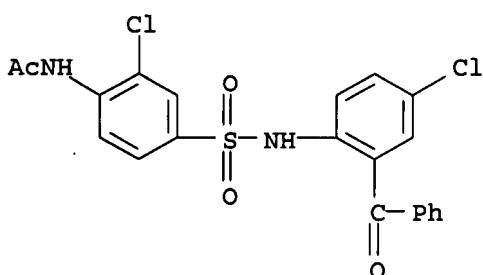
RN 392305-40-7 CAPLUS

CN Acetamide, N-[4-[[[2-benzoyl-4-chlorophenyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



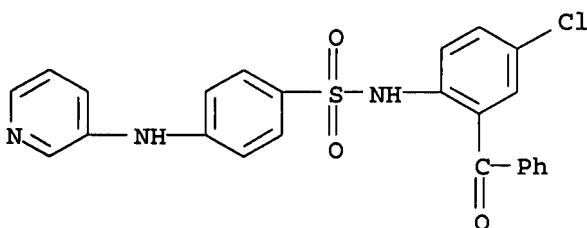
RN 855595-43-6 CAPLUS

CN Acetamide, N-[4-[[[2-benzoyl-4-chlorophenyl]amino]sulfonyl]-2-chlorophenyl]- (9CI) (CA INDEX NAME)



RN 855595-65-2 CAPLUS

CN Benzenesulfonamide, N-(2-benzoyl-4-chlorophenyl)-4-(3-pyridinylamino)- (9CI) (CA INDEX NAME)



L24 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:55027 CAPLUS

DN 142:155671

TI Preparation of arylsulfonamides for treating pain and inflammation associated with the bradykinin B1 pathway

IN Anthony, Neville J.; Lim, John Jin; Su, Dai-Shi; Wood, Michael R.

PA Merck & Co., Inc., USA

SO PCT Int. Appl., 61 pp.

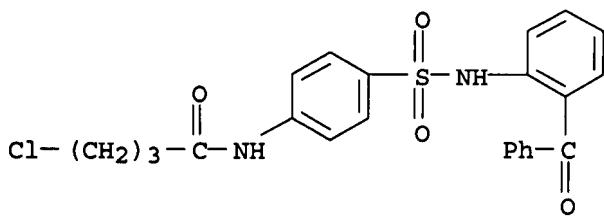
CODEN: PIXXD2

DT Patent

LA English

## FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|----|---|------|----------|-----------------|------------|
| PI | WO 2005004810   | A2   | 20050120 | WO 2004-US21018 | 20040630   |
|    | WO 2005004810   | A3   | 20060824 |                 |            |
|    | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,<br>CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,<br>GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,<br>LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,<br>NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,<br>TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW<br>RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,<br>AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,<br>EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,<br>SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,<br>SN, TD, TG      |      |          | US 2003-484498P | P 20030702 |
| EP | 1643960   | A2   | 20060412 | EP 2004-756434  | 20040630   |
|    | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,<br>IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR  |      |          | US 2003-484498P | P 20030702 |
|    |   |      |          | WO 2004-US21018 | W 20040630 |
| US | 2006142612  | A1   | 20060629 | US 2005-561319  | 20051220   |
|    |   |      |          | US 2003-484498P | P 20030702 |
|    |   |      |          | WO 2004-US21018 | W 20040630 |
| OS | CASREACT 142:155671; MARPAT 142:155671  |      |          |                 |            |
| AB | The title compds. I [A = O, CO, S, N5, CRbRc; D = COR4, (un)substituted CONH2, SO2NH2, ester group; X, Y, Z = N, C; with the proviso that 0-3 X, 0-3 Y and 0-3 Z are ring N atoms; R11, R12 = H, halo, alkyl, etc.; R2, R3 = H, halo, CN, NO2, etc.; R4 = H, alkyl, cycloalkyl, etc.; R5 = H, alkyl, arylalkyl, etc.; Rb, Rc = H, halo, alkyl, haloalkyl; with the proviso] which are bradykinin B1 antagonists or inverse agonists useful in the treatment or prevention of symptoms such as pain and inflammation associated with the bradykinin B1 pathway (no data), were prepared and formulated. E.g., a 3-step synthesis of II, starting from Me 2-mercaptopbenzoate and 1-fluoro-2-nitrobenzene, was given. |      |          |                 |            |
| IT | 827576-84-1P  |      |          |                 |            |
|    | RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  |      |          |                 |            |
|    | (preparation of arylsulfonamides for treating pain and inflammation associated with the bradykinin B1 pathway)  |      |          |                 |            |
| RN | 827576-84-1 CAPLUS  |      |          |                 |            |
| CN | Butanamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-4-chloro- (9CI)<br>(CA INDEX NAME)  |      |          |                 |            |



IT 827575-66-6P 827575-68-8P 827575-99-5P  
 827576-00-1P 827576-01-2P 827576-02-3P  
 827576-03-4P 827576-04-5P 827576-05-6P  
 827576-06-7P 827576-07-8P 827576-08-9P  
 827576-09-0P 827576-10-3P 827576-11-4P  
 827576-12-5P 827576-13-6P 827576-14-7P

827576-15-8P 827576-16-9P 827576-17-0P  
827576-19-2P 827576-20-5P 827576-21-6P  
827576-22-7P 827576-23-8P 827576-24-9P  
827576-25-0P 827576-26-1P 827576-27-2P  
827576-28-3P 827576-29-4P 827576-30-7P  
827576-31-8P 827576-32-9P 827576-33-0P  
827576-34-1P 827576-35-2P 827576-36-3P  
827576-37-4P 827576-38-5P 827576-39-6P  
827576-40-9P 827576-41-0P 827576-42-1P  
827576-43-2P 827576-44-3P 827576-45-4P  
827576-46-5P 827576-47-6P 827576-48-7P  
827576-49-8P 827576-50-1P 827576-51-2P  
827576-52-3P 827576-53-4P 827576-54-5P  
827576-55-6P 827576-56-7P 827576-57-8P  
827576-58-9P 827576-59-0P 827576-60-3P  
827576-61-4P 827576-62-5P 827576-63-6P  
827576-64-7P 827576-65-8P 827576-66-9P  
827576-67-0P 827576-68-1P 827576-69-2P  
827576-70-5P 827576-71-6P 827576-72-7P  
827576-73-8P 827576-75-0P 827576-76-1P  
827576-77-2P 827576-78-3P 827576-79-4P  
827576-80-7P 827576-81-8P 827576-82-9P  
827576-83-0P 827576-85-2P 827576-86-3P  
827576-87-4P 827576-88-5P 827576-89-6P  
827576-90-9P 827576-91-0P 827576-92-1P  
827576-93-2P 827576-94-3P 827576-95-4P  
827576-96-5P 827576-97-6P 827576-98-7P  
827576-99-8P 827577-01-5P 827577-08-2P  
827577-10-6P 827577-11-7P 827577-13-9P  
827577-14-0P 827577-23-1P 827577-25-3P  
827577-29-7P 827577-30-0P 827577-35-5P  
827577-36-6P 827577-37-7P 827577-38-8P  
827577-39-9P 827577-40-2P 827577-41-3P  
827577-42-4P 827577-43-5P 827577-44-6P  
827577-45-7P 827577-46-8P 827577-47-9P  
827577-48-0P 827577-49-1P 827577-50-4P  
827577-51-5P 827577-52-6P 827577-53-7P  
827577-54-8P 827577-55-9P 827577-56-0P  
827577-57-1P 827577-58-2P 827577-59-3P  
827577-60-6P 827577-61-7P 827577-62-8P  
827577-63-9P 827577-64-0P 827577-65-1P  
827577-66-2P 827577-67-3P 827577-68-4P  
827577-69-5P 827577-70-8P 827577-71-9P  
827577-72-0P 827577-73-1P 827577-74-2P  
827577-75-3P 827577-76-4P 827577-77-5P  
827577-78-6P 827577-79-7P 827577-80-0P  
827577-81-1P 827578-26-7P 827578-27-8P  
827578-28-9P 827578-29-0P 827578-30-3P  
827578-31-4P 827578-32-5P 827578-33-6P  
827578-35-8P 827578-36-9P 827578-37-0P  
827578-38-1P 827578-39-2P 827578-40-5P  
827578-41-6P 827578-43-8P 827578-44-9P  
827578-45-0P 827578-46-1P 827578-49-4P  
827578-50-7P 827578-51-8P 827578-61-0P  
827578-62-1P 827578-63-2P 827578-64-3P  
827578-65-4P 827578-66-5P 827578-67-6P  
827578-68-7P 827578-69-8P 827578-70-1P  
827578-71-2P 827578-72-3P 827578-73-4P  
827578-74-5P 827578-75-6P 827578-77-8P  
827578-78-9P 827578-79-0P 827578-80-3P  
827578-81-4P 827578-82-5P 827578-83-6P  
827578-84-7P 827578-85-8P 827578-86-9P  
827578-87-0P 827578-88-1P 827578-89-2P  
827578-90-5P 827578-91-6P 827578-92-7P

827578-93-8P 827578-94-9P 827578-95-0P  
827578-96-1P 827578-97-2P 827578-98-3P  
827578-99-4P 827579-00-0P 827579-01-1P  
827579-02-2P 827579-03-3P 827579-04-4P  
827579-05-5P 827579-06-6P 827579-07-7P  
827579-08-8P 827579-09-9P 827579-10-2P  
827579-11-3P 827579-12-4P 827579-13-5P  
827579-14-6P 827579-15-7P 827579-16-8P

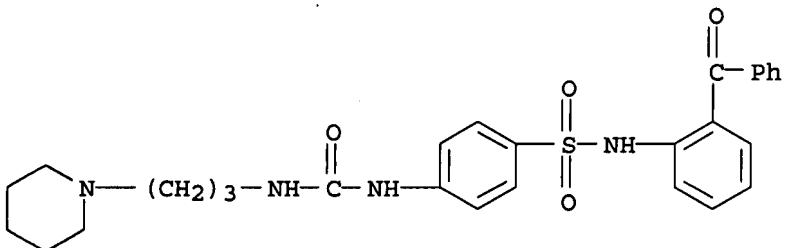
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of arylsulfonamides for treating pain and inflammation associated

with the bradykinin B1 pathway)

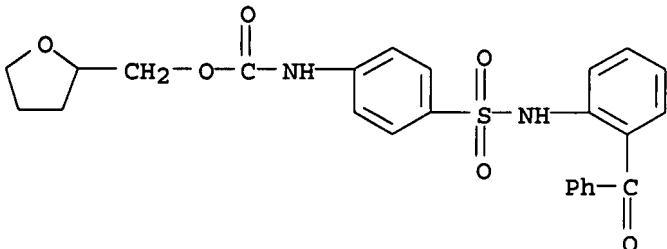
RN 827575-66-6 CAPLUS

CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[[3-(1-piperidinyl)propyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



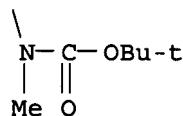
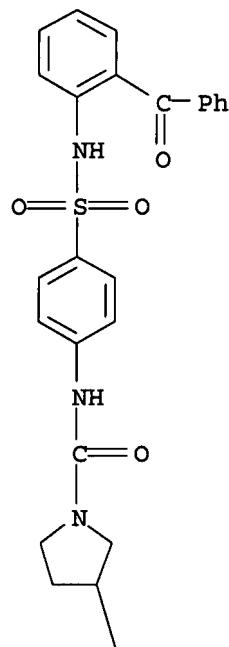
RN 827575-68-8 CAPLUS

CN Carbamic acid, [4-[[[(2-benzoylphenyl)amino]sulfonyl]phenyl]-, (tetrahydro-2-furanyl)methyl ester (9CI) (CA INDEX NAME)

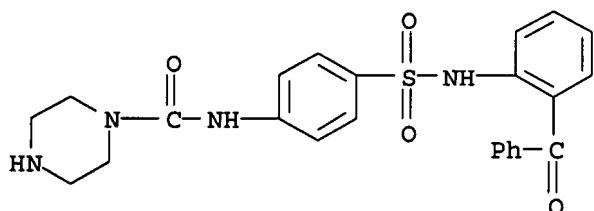


RN 827575-99-5 CAPLUS

CN Carbamic acid, [1-[[[4-[[[(2-benzoylphenyl)amino]sulfonyl]phenyl]amino]carbonyl]-3-pyrrolidinyl]methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

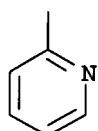
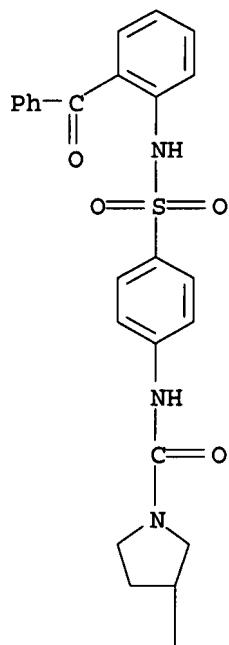


RN 827576-00-1 CAPLUS

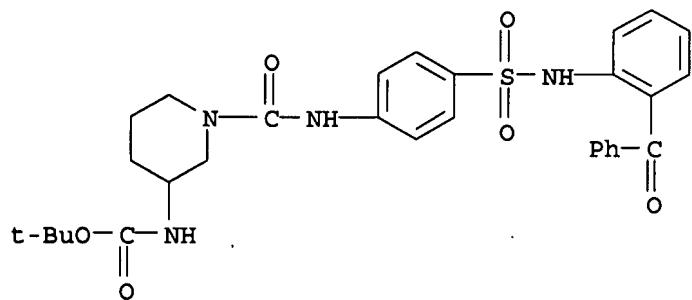
CN 1-Piperazinecarboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-  
(9CI) (CA INDEX NAME)

RN 827576-01-2 CAPLUS

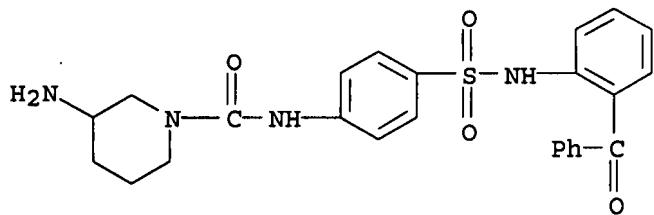
CN 1-Pyrrolidinecarboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-3-  
(2-pyridinyl)- (9CI) (CA INDEX NAME)



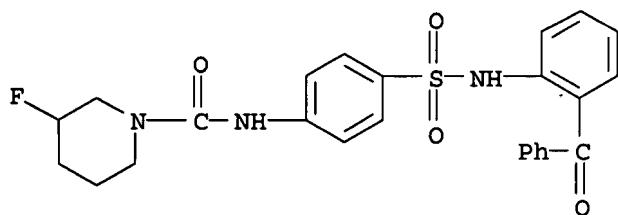
RN 827576-02-3 CAPLUS  
 CN Carbamic acid, [1-[[[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]amino]carbonyl]-3-piperidinyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



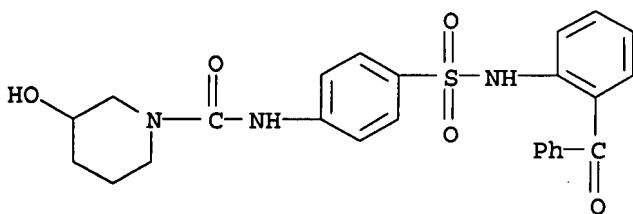
RN 827576-03-4 CAPLUS  
 CN 1-Piperidinecarboxamide, 3-amino-N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl- (9CI) (CA INDEX NAME)



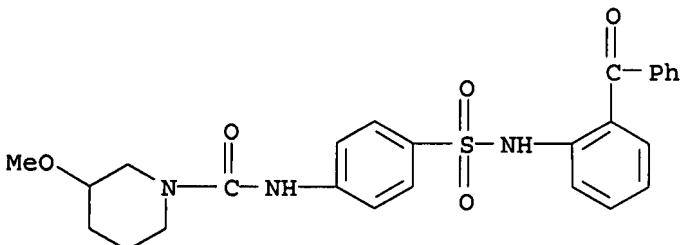
RN 827576-04-5 CAPLUS  
 CN 1-Piperidinecarboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-3-fluoro- (9CI) (CA INDEX NAME)



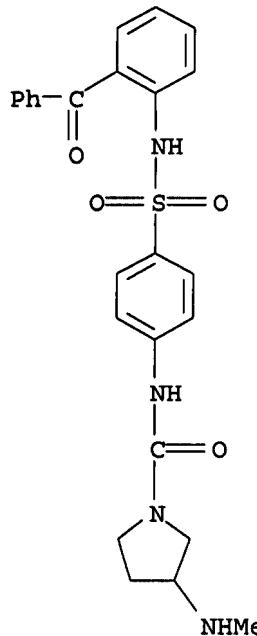
RN 827576-05-6 CAPLUS  
 CN 1-Piperidinecarboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-3-hydroxy- (9CI) (CA INDEX NAME)



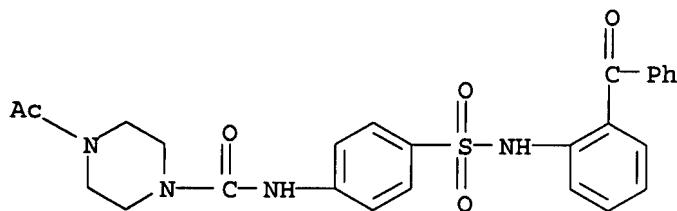
RN 827576-06-7 CAPLUS  
 CN 1-Piperidinecarboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-3-methoxy- (9CI) (CA INDEX NAME)



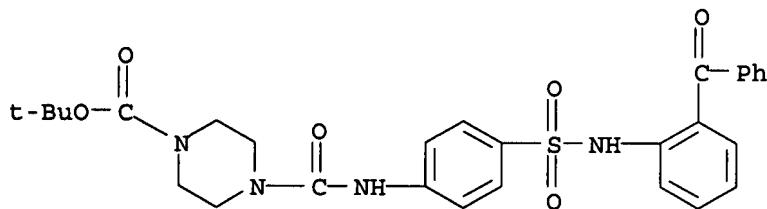
RN 827576-07-8 CAPLUS  
 CN 1-Pyrrolidinecarboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-3-(methylamino)- (9CI) (CA INDEX NAME)



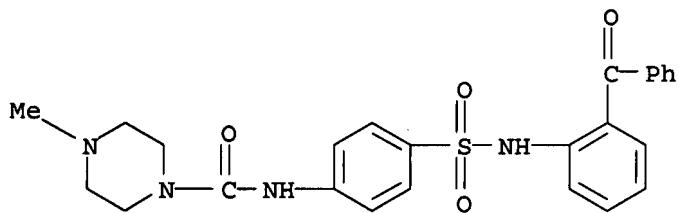
RN 827576-08-9 CAPLUS  
 CN 1-Piperazinecarboxamide, 4-acetyl-N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



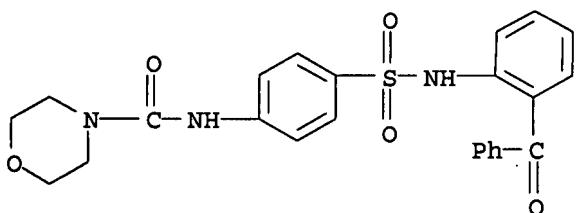
RN 827576-09-0 CAPLUS  
 CN 1-Piperazinecarboxylic acid, 4-[[[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]amino]carbonyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



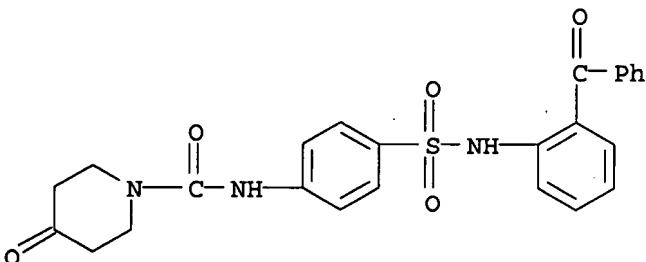
RN 827576-10-3 CAPLUS  
 CN 1-Piperazinecarboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-4-methyl- (9CI) (CA INDEX NAME)



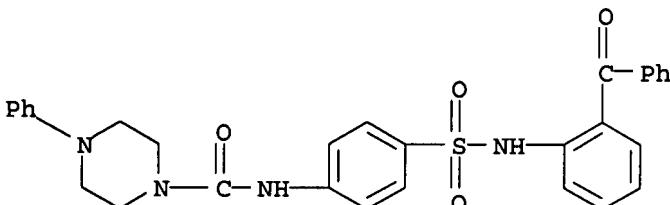
RN 827576-11-4 CAPLUS  
CN 4-Morpholinecarboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-  
(9CI) (CA INDEX NAME)



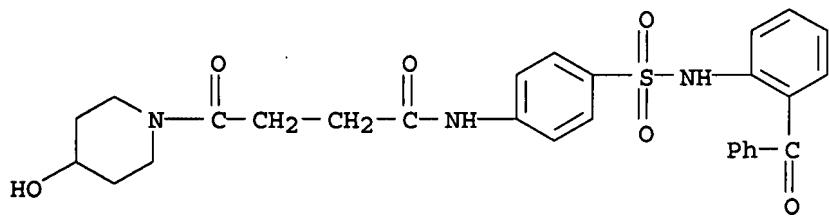
RN 827576-12-5 CAPLUS  
CN 1-Piperidinecarboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-4-  
oxo- (9CI) (CA INDEX NAME)



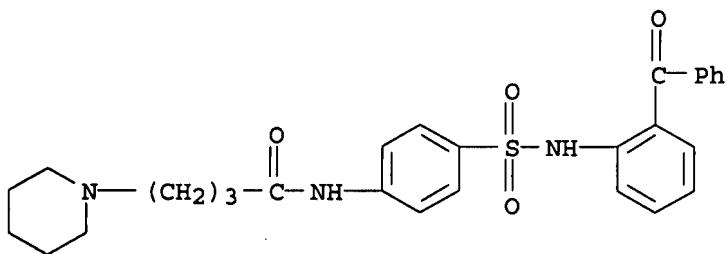
RN 827576-13-6 CAPLUS  
CN 1-Piperazinecarboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-4-  
phenyl- (9CI) (CA INDEX NAME)



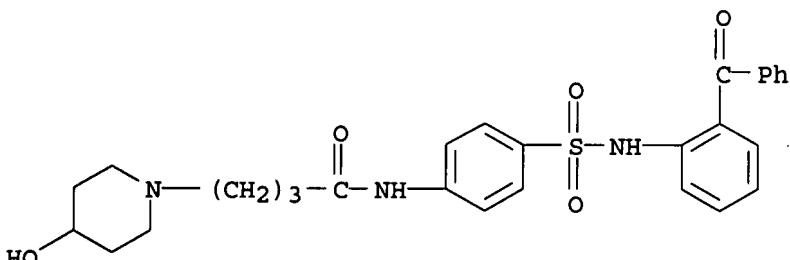
RN 827576-14-7 CAPLUS  
CN 1-Piperidinebutanamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-4-  
hydroxy- $\gamma$ -oxo- (9CI) (CA INDEX NAME)



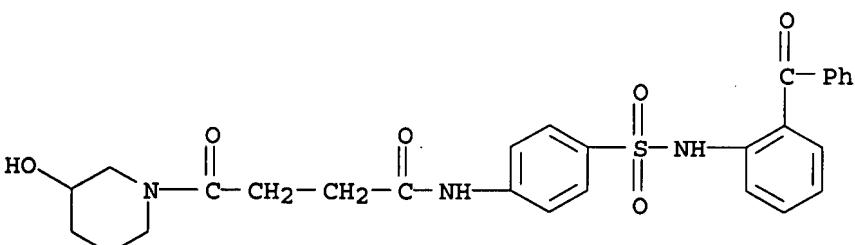
RN 827576-15-8 CAPLUS  
CN 1-Piperidinebutanamide, N-[4-[[[(2-benzoylphenyl)amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



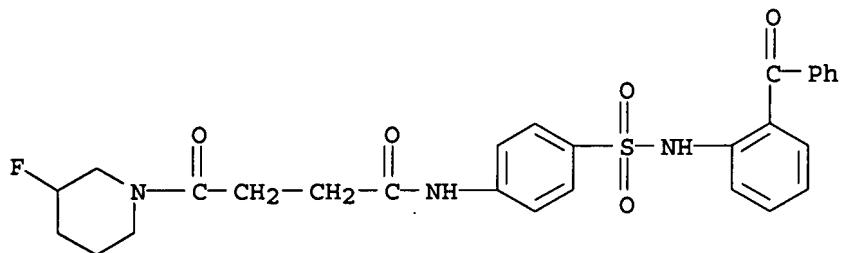
RN 827576-16-9 CAPLUS  
CN 1-Piperidinebutanamide, N-[4-[[[(2-benzoylphenyl)amino]sulfonyl]phenyl]-4-hydroxy- (9CI) (CA INDEX NAME)



RN 827576-17-0 CAPLUS  
CN 1-Piperidinebutanamide, N-[4-[[[(2-benzoylphenyl)amino]sulfonyl]phenyl]-3-hydroxy-gamma-oxo- (9CI) (CA INDEX NAME)



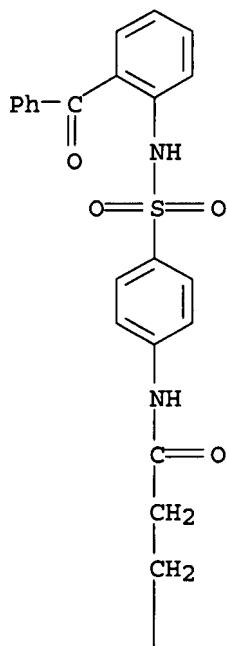
RN 827576-19-2 CAPLUS  
CN 1-Piperidinopropanamide, N-[4-[[[(2-benzoylphenyl)amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



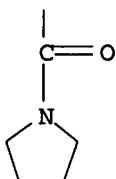
RN 827576-22-7 CAPLUS

CN 1-Pyrrolidinebutanamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl-  
 $\gamma$ -oxo- (9CI) (CA INDEX NAME)

PAGE 1-A

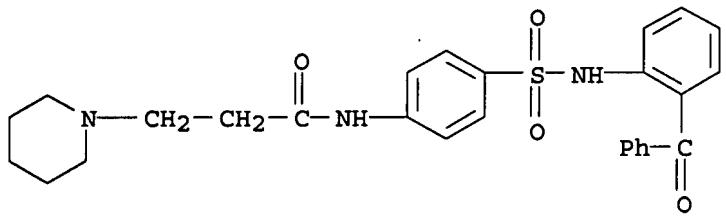


PAGE 2-A



RN 827576-23-8 CAPLUS

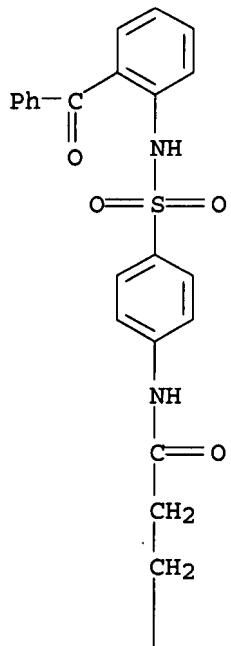
CN 1-Piperidinebutanamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl-  
 $\gamma,4$ -dioxo- (9CI) (CA INDEX NAME)



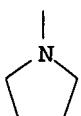
RN 827576-20-5 CAPLUS

CN 1-Pyrrolidinepropanamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

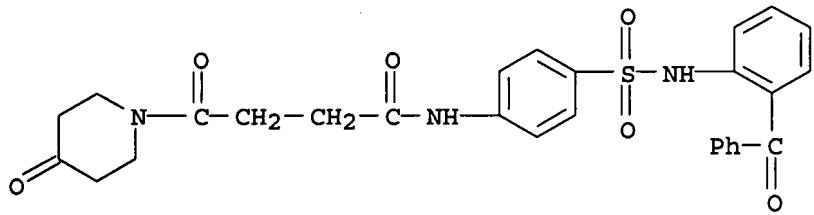


PAGE 2-A

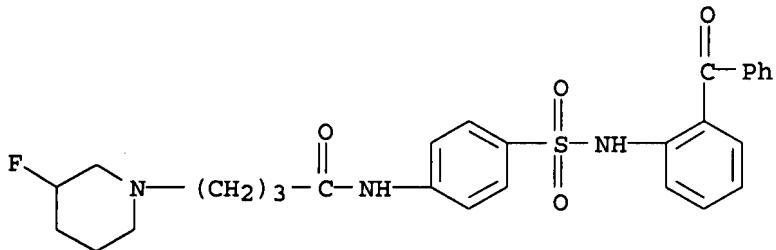


RN 827576-21-6 CAPLUS

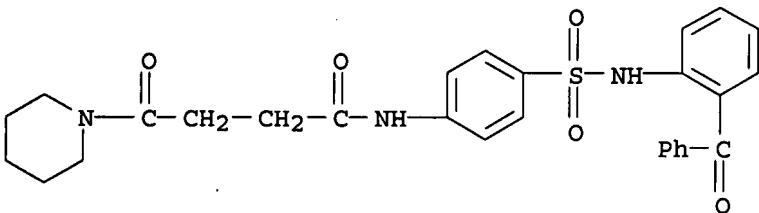
CN 1-Piperidinebutanamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-3-fluoro-γ-oxo- (9CI) (CA INDEX NAME)



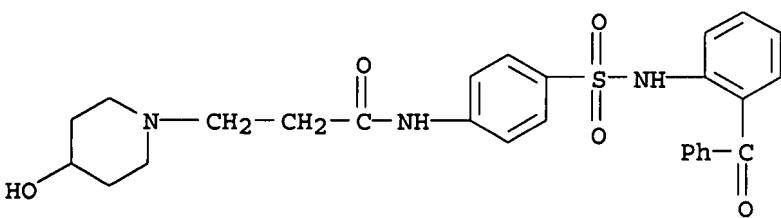
RN 827576-24-9 CAPLUS  
 CN 1-Piperidinebutanamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-3-fluoro- (9CI) (CA INDEX NAME)



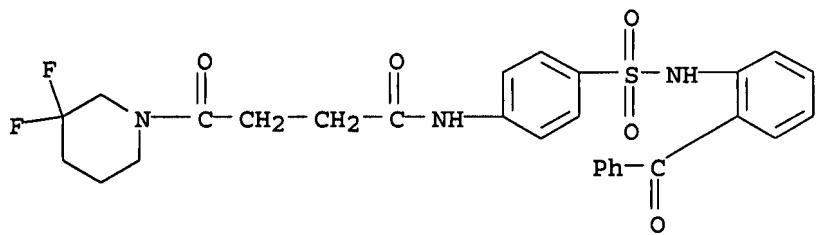
RN 827576-25-0 CAPLUS  
 CN 1-Piperidinebutanamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-gamma-oxo- (9CI) (CA INDEX NAME)



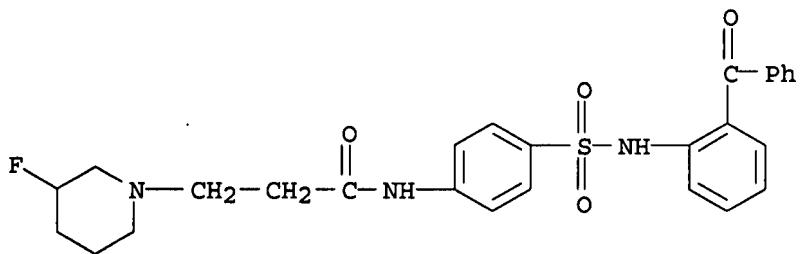
RN 827576-26-1 CAPLUS  
 CN 1-Piperidinopropanamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-4-hydroxy- (9CI) (CA INDEX NAME)



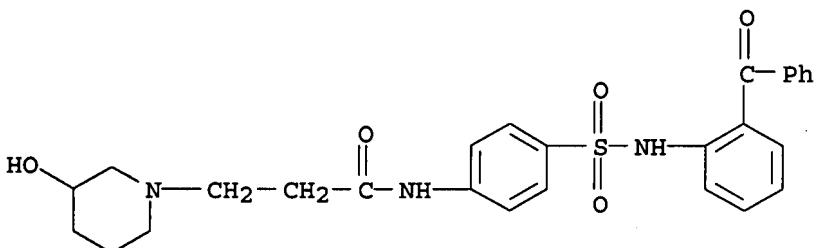
RN 827576-27-2 CAPLUS  
 CN 1-Piperidinebutanamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-3,3-difluoro-gamma-oxo- (9CI) (CA INDEX NAME)



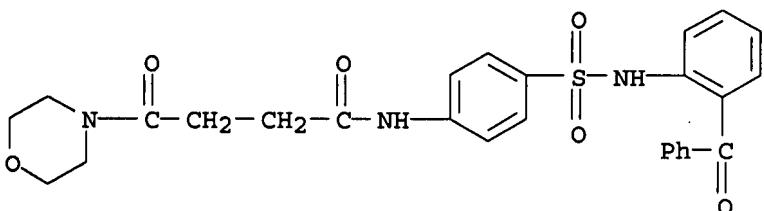
RN 827576-28-3 CAPLUS  
CN 1-Piperidinepropanamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-3-fluoro- (9CI) (CA INDEX NAME)



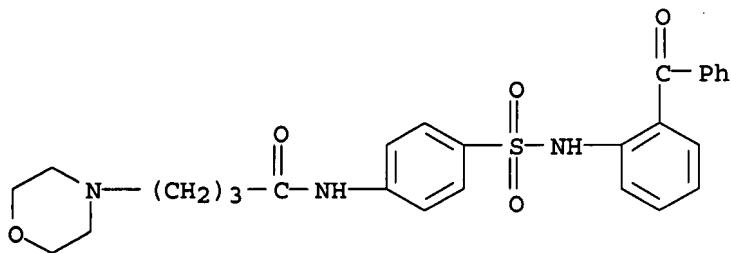
RN 827576-29-4 CAPLUS  
CN 1-Piperidinepropanamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-3-hydroxy- (9CI) (CA INDEX NAME)



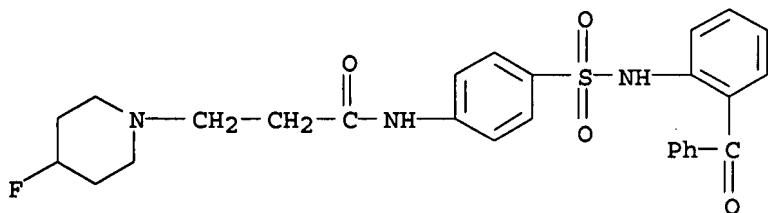
RN 827576-30-7 CAPLUS  
CN 4-Morpholinebutanamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]- $\gamma$ -oxo- (9CI) (CA INDEX NAME)



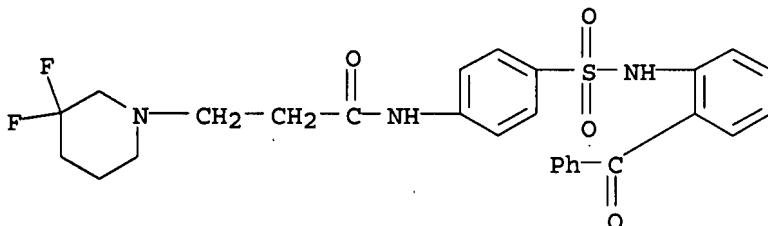
RN 827576-31-8 CAPLUS  
CN 4-Morpholinebutanamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



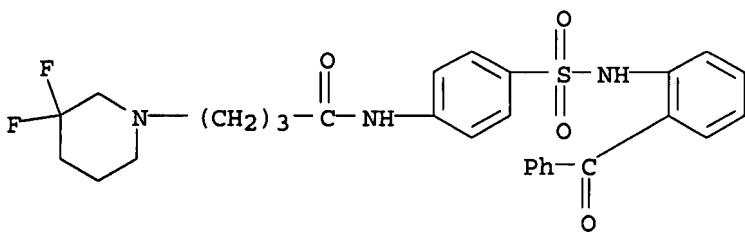
RN 827576-32-9 CAPLUS  
 CN 1-Piperidinepropanamide, N-[4-[[[(2-benzoylphenyl)amino]sulfonyl]phenyl]-4-fluoro- (9CI) (CA INDEX NAME)



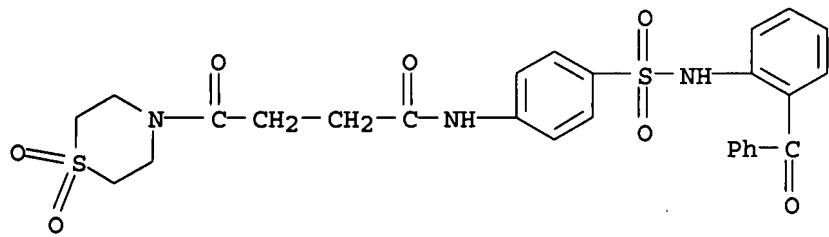
RN 827576-33-0 CAPLUS  
 CN 1-Piperidinepropanamide, N-[4-[[[(2-benzoylphenyl)amino]sulfonyl]phenyl]-3,3-difluoro- (9CI) (CA INDEX NAME)



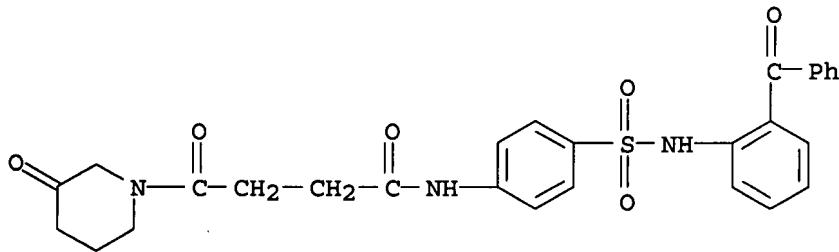
RN 827576-34-1 CAPLUS  
 CN 1-Piperidinebutanamide, N-[4-[[[(2-benzoylphenyl)amino]sulfonyl]phenyl]-3,3-difluoro- (9CI) (CA INDEX NAME)



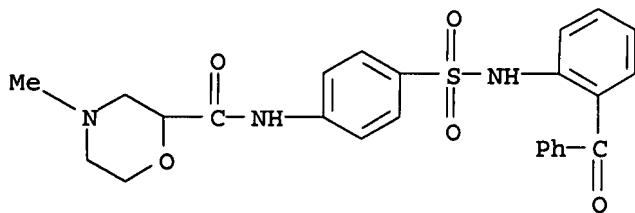
RN 827576-35-2 CAPLUS  
 CN 4-Thiomorpholinebutanamide, N-[4-[[[(2-benzoylphenyl)amino]sulfonyl]phenyl]-gamma-oxo-, 1,1-dioxide (9CI) (CA INDEX NAME)



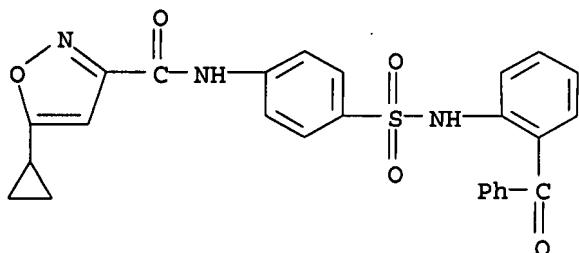
RN 827576-36-3 CAPLUS  
 CN 1-Piperidinebutanamide, N-[4-[[2-benzoylphenyl]amino]sulfonyl]phenyl]-  
 γ,3-dioxo- (9CI) (CA INDEX NAME)



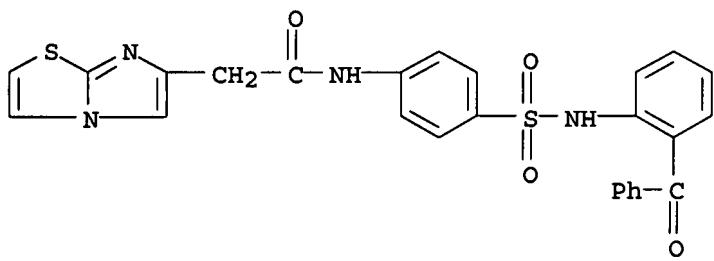
RN 827576-37-4 CAPLUS  
 CN 2-Morpholinecarboxamide, N-[4-[[2-benzoylphenyl]amino]sulfonyl]phenyl]-4-  
 methyl- (9CI) (CA INDEX NAME)



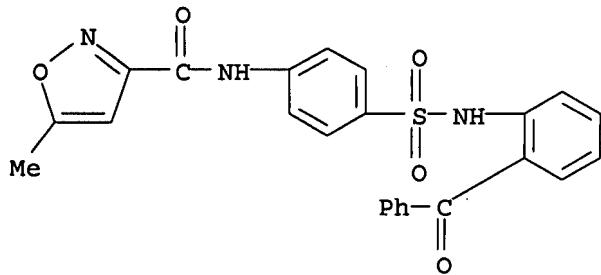
RN 827576-38-5 CAPLUS  
 CN 3-Isoxazolecarboxamide, N-[4-[[2-benzoylphenyl]amino]sulfonyl]phenyl]-5-  
 cyclopropyl- (9CI) (CA INDEX NAME)



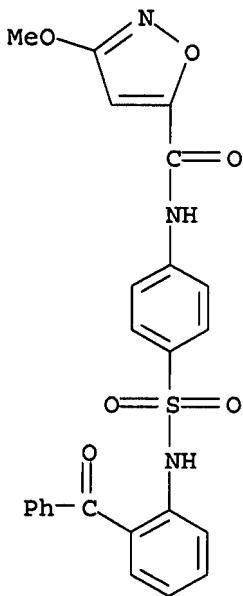
RN 827576-39-6 CAPLUS  
 CN Imidazo[2,1-b]thiazole-6-acetamide, N-[4-[[2-  
 benzoylphenyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



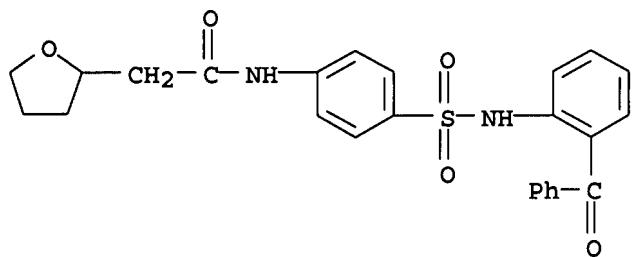
RN 827576-40-9 CAPLUS  
 CN 3-Isoxazolecarboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-5-methyl- (9CI) (CA INDEX NAME)



RN 827576-41-0 CAPLUS  
 CN 5-Isoxazolecarboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-3-methoxy- (9CI) (CA INDEX NAME)



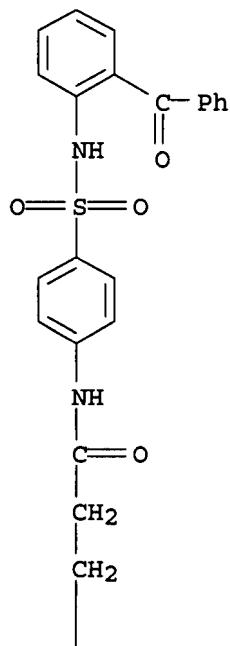
RN 827576-42-1 CAPLUS  
 CN 2-Furanacetamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]tetrahydro- (9CI) (CA INDEX NAME)



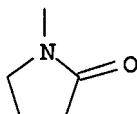
RN 827576-43-2 CAPLUS

CN 1-Pyrrolidinepropanamide, N-[4-[[[(2-benzoylphenyl)amino]sulfonyl]phenyl]-2-oxo- (9CI) (CA INDEX NAME)

PAGE 1-A

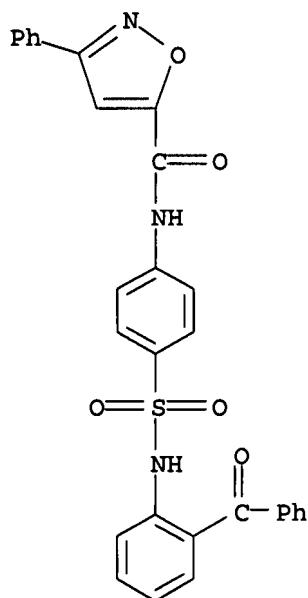


PAGE 2-A

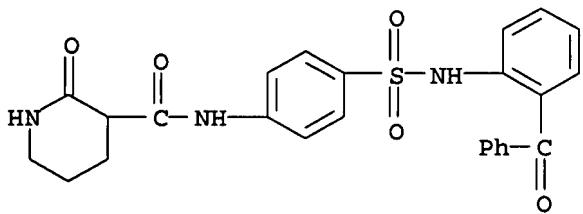


RN 827576-44-3 CAPLUS

CN 5-Isoxazolecarboxamide, N-[4-[[[(2-benzoylphenyl)amino]sulfonyl]phenyl]-3-phenyl- (9CI) (CA INDEX NAME)

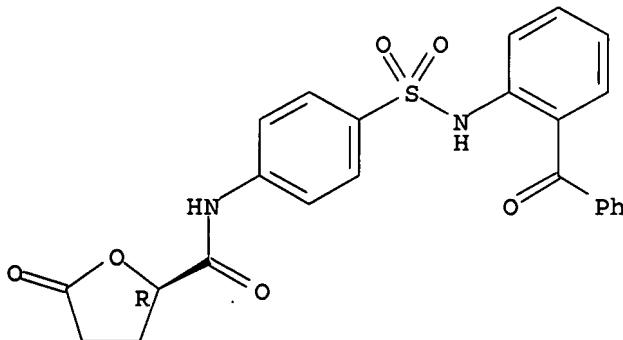


RN 827576-45-4 CAPLUS  
 CN 3-Piperidinecarboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-2-oxo- (9CI) (CA INDEX NAME)

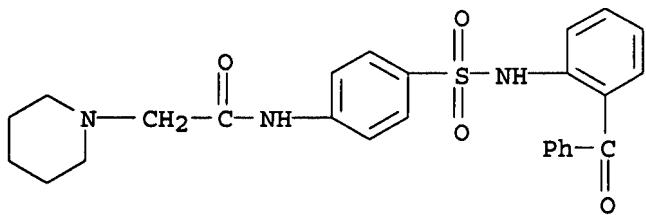


RN 827576-46-5 CAPLUS  
 CN 2-Furancarboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]tetrahydro-5-oxo-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

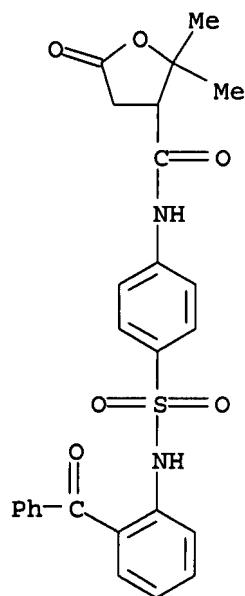


RN 827576-47-6 CAPLUS  
 CN 1-Piperidineacetamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



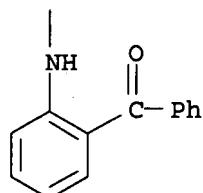
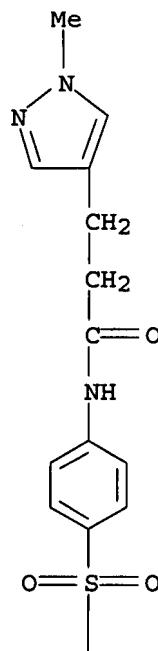
RN 827576-48-7 CAPLUS

CN 3-Furancarboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]tetrahyd  
ro-2,2-dimethyl-5-oxo- (9CI) (CA INDEX NAME)



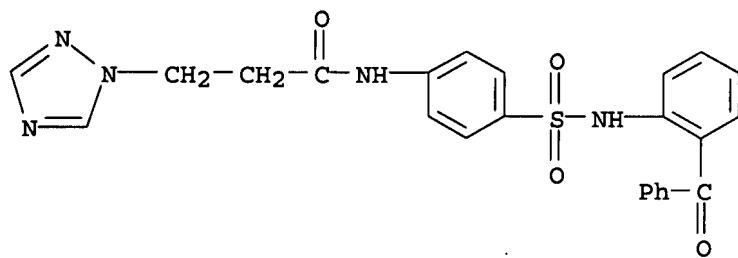
RN 827576-49-8 CAPLUS

CN 1H-Pyrazole-4-propanamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-  
1-methyl- (9CI) (CA INDEX NAME)



RN 827576-50-1 CAPLUS

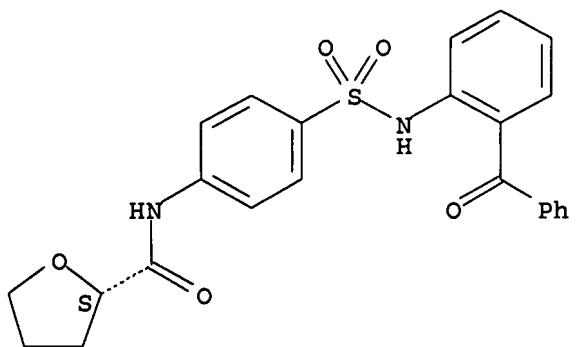
CN 1H-1,2,4-Triazole-1-propanamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



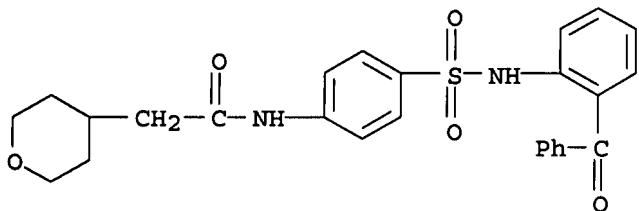
RN 827576-51-2 CAPLUS

CN 2-Furancarboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]tetrahyd ro-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

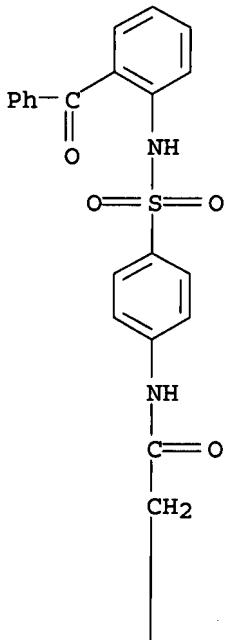


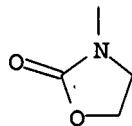
RN 827576-52-3 CAPLUS  
 CN 2H-Pyran-4-acetamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]tetrahydro- (9CI) (CA INDEX NAME)



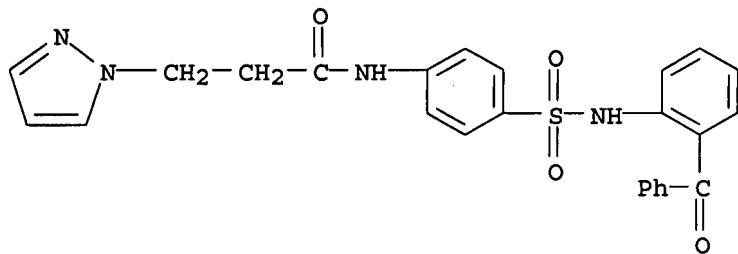
RN 827576-53-4 CAPLUS  
 CN 3-Oxazolidineacetamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-2-oxo- (9CI) (CA INDEX NAME)

PAGE 1-A



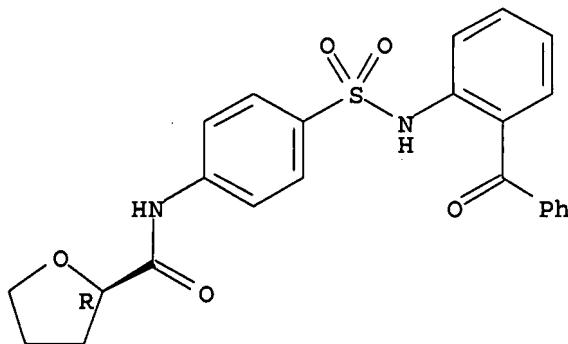


RN 827576-54-5 CAPLUS

CN 1H-Pyrazole-1-propanamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-  
(9CI) (CA INDEX NAME)

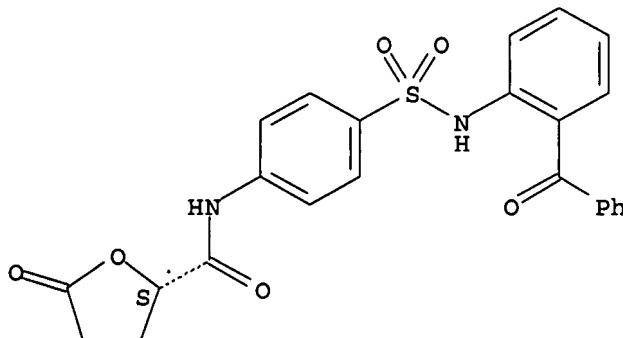
RN 827576-55-6 CAPLUS

CN 2-Furancarboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]tetrahydropyran-2-one, (2R)- (9CI) (CA INDEX NAME)

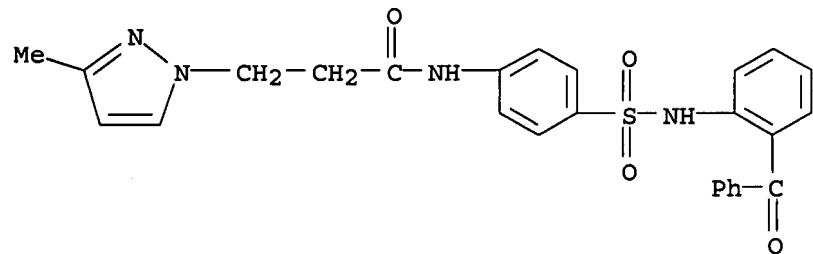
**Absolute stereochemistry.**

RN 827576-56-7 CAPLUS

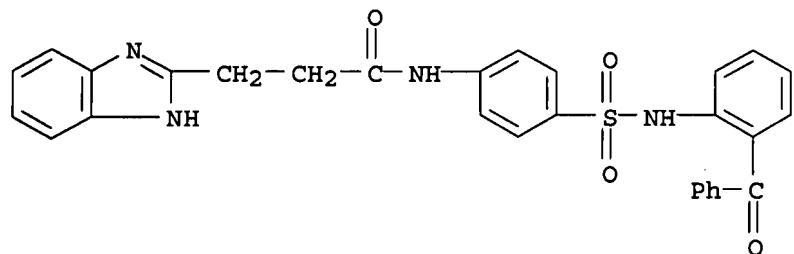
CN 2-Furancarboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]tetrahydropyran-2-oxo-, (2S)- (9CI) (CA INDEX NAME)

**Absolute stereochemistry.**

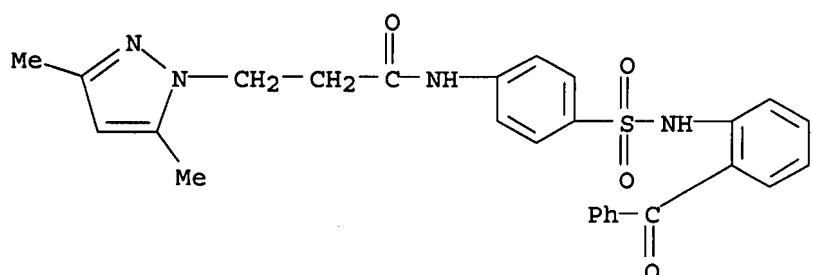
RN 827576-57-8 CAPLUS  
CN 1H-Pyrazole-1-propanamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-3-methyl- (9CI) (CA INDEX NAME)



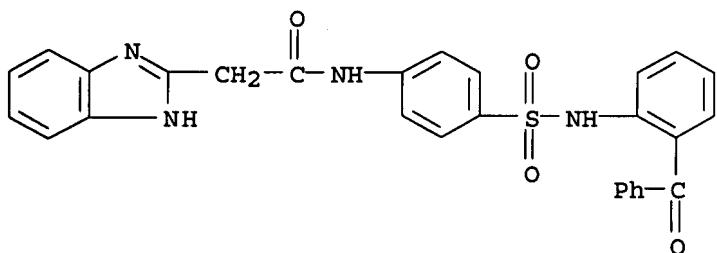
RN 827576-58-9 CAPLUS  
CN 1H-Benzimidazole-2-propanamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



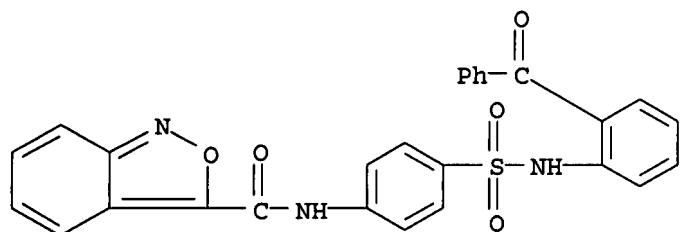
RN 827576-59-0 CAPLUS  
CN 1H-Pyrazole-1-propanamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-3,5-dimethyl- (9CI) (CA INDEX NAME)



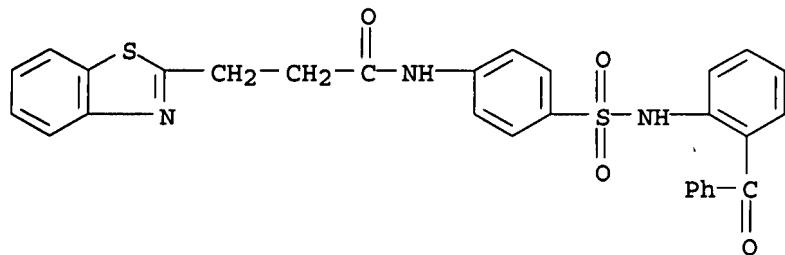
RN 827576-60-3 CAPLUS  
CN 1H-Benzimidazole-2-acetamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



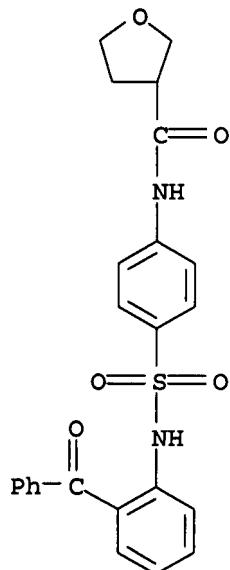
RN 827576-61-4 CAPLUS  
CN 2,1-Benzisoxazole-3-carboxamide, N-[4-[[2-benzoylphenyl]amino]sulfonyl]phenyl- (9CI) (CA INDEX NAME)



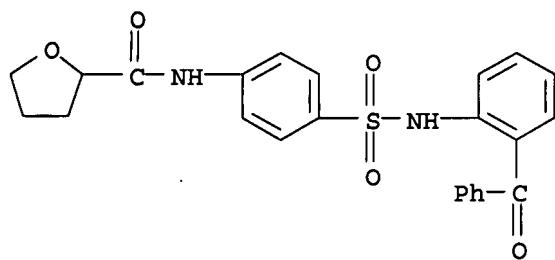
RN 827576-62-5 CAPLUS  
CN 2-Benzothiazolepropanamide, N-[4-[[2-benzoylphenyl]amino]sulfonyl]phenyl- (9CI) (CA INDEX NAME)



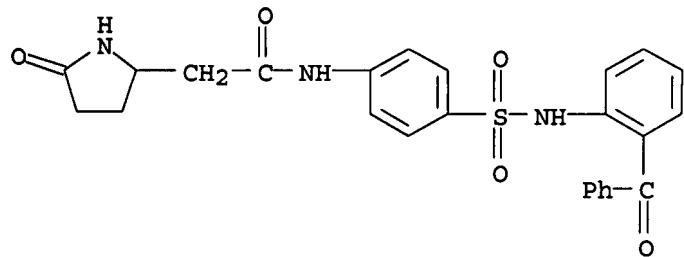
RN 827576-63-6 CAPLUS  
CN 3-Furancarboxamide, N-[4-[[2-benzoylphenyl]amino]sulfonyl]phenyl]tetrahyd- ro- (9CI) (CA INDEX NAME)



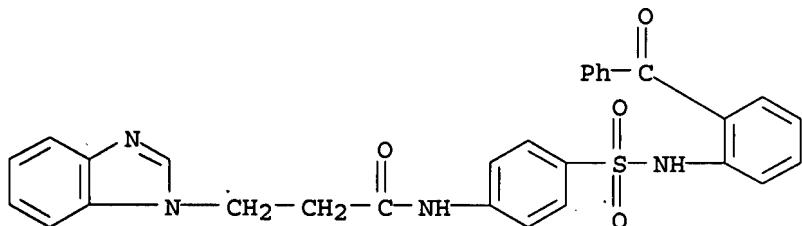
RN 827576-64-7 CAPLUS  
CN 2-Furancarboxamide, N-[4-[[2-benzoylphenyl]amino]sulfonyl]phenyl]tetrahyd- ro- (9CI) (CA INDEX NAME)



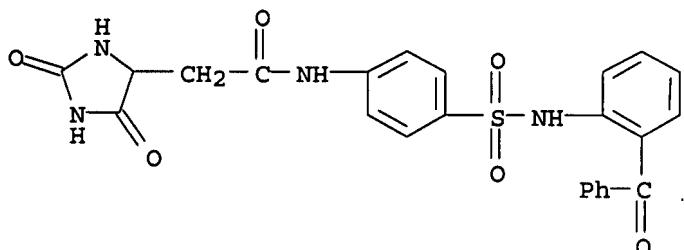
RN 827576-65-8 CAPLUS  
 CN 2-Pyrrolidineacetamide, N-[4-[[2-benzoylphenyl]amino]sulfonyl]phenyl]-5-oxo- (9CI) (CA INDEX NAME)



RN 827576-66-9 CAPLUS  
 CN 1H-Benzimidazole-1-propanamide, N-[4-[[2-benzoylphenyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)

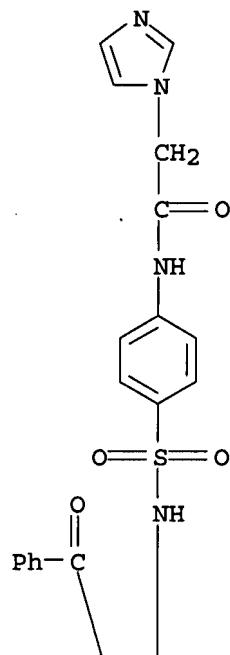


RN 827576-67-0 CAPLUS  
 CN 4-Imidazolidineacetamide, N-[4-[[2-benzoylphenyl]amino]sulfonyl]phenyl]-2,5-dioxo- (9CI) (CA INDEX NAME)

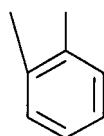


RN 827576-68-1 CAPLUS  
 CN 1H-Imidazole-1-acetamide, N-[4-[[2-benzoylphenyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

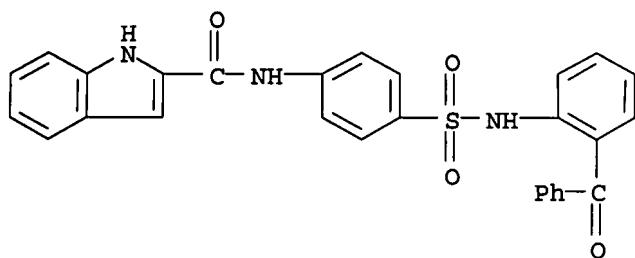


PAGE 2-A



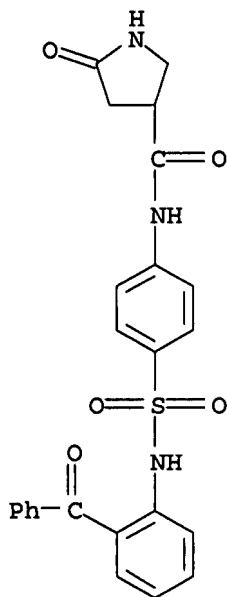
RN 827576-69-2 CAPLUS

CN 1H-Indole-2-carboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl- (9CI) (CA INDEX NAME)

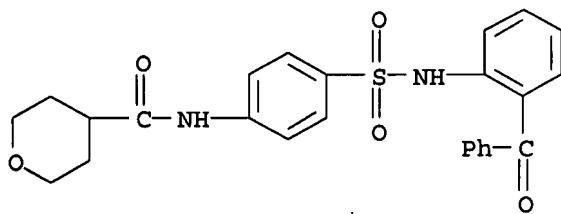


RN 827576-70-5 CAPLUS

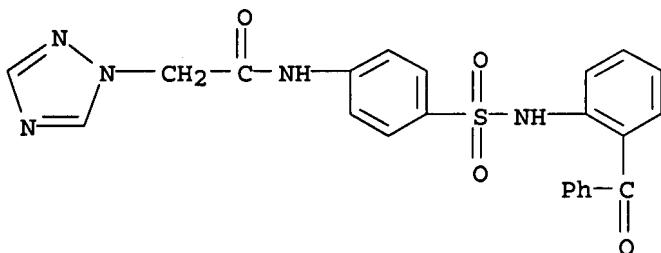
CN 3-Pyrrolidinecarboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl-5-oxo- (9CI) (CA INDEX NAME)



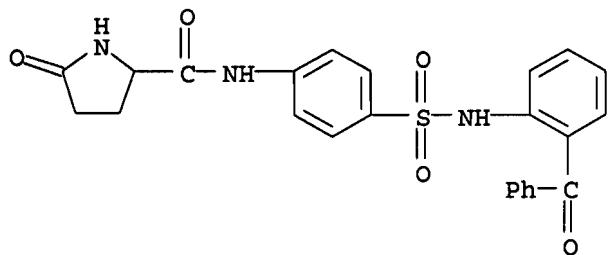
RN 827576-71-6 CAPLUS  
 CN 2H-Pyran-4-carboxamide, N-[4-[[2-benzoylphenyl]amino]sulfonyl]phenyl]tetrathydro- (9CI) (CA INDEX NAME)



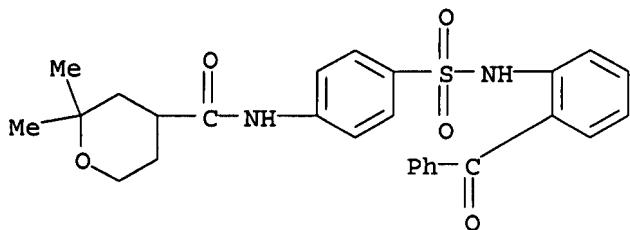
RN 827576-72-7 CAPLUS  
 CN 1H-1,2,4-Triazole-1-acetamide, N-[4-[[2-benzoylphenyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



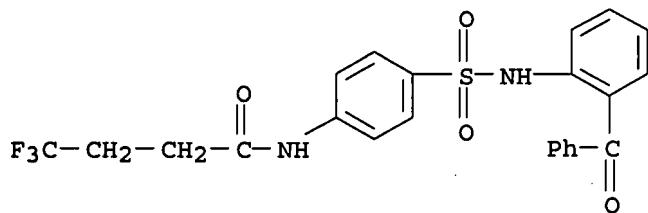
RN 827576-73-8 CAPLUS  
 CN 2-Pyrrolidinecarboxamide, N-[4-[[2-benzoylphenyl]amino]sulfonyl]phenyl]-5-oxo- (9CI) (CA INDEX NAME)



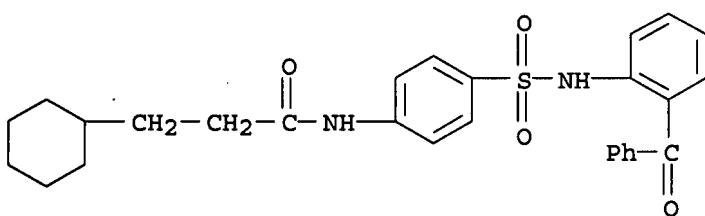
RN 827576-75-0 CAPLUS  
 CN 2H-Pyran-4-carboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]tetrahydro-2,2-dimethyl- (9CI) (CA INDEX NAME)



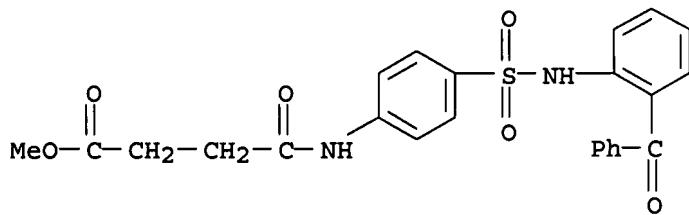
RN 827576-76-1 CAPLUS  
 CN Butanamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-4,4,4-trifluoro- (9CI) (CA INDEX NAME)



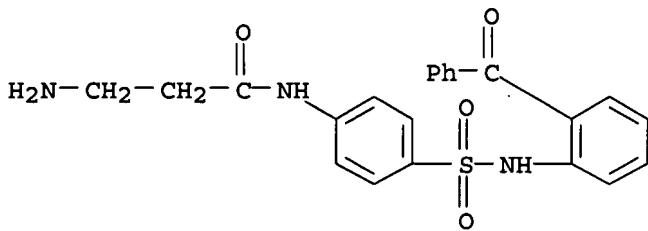
RN 827576-77-2 CAPLUS  
 CN Cyclohexanepropanamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



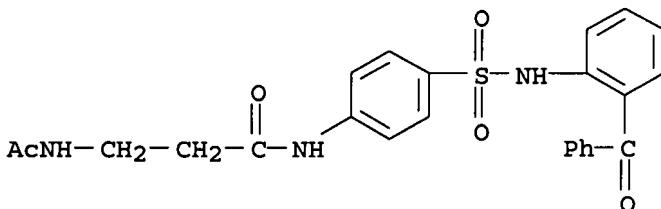
RN 827576-78-3 CAPLUS  
 CN Butanoic acid, 4-[[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]amino]-4-oxo-, methyl ester (9CI) (CA INDEX NAME)



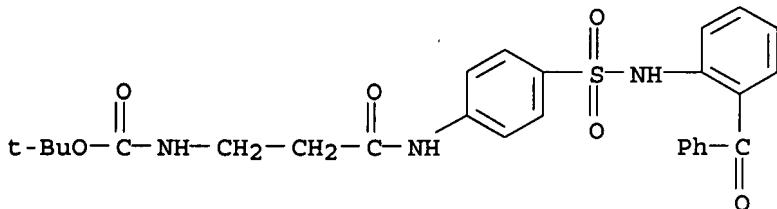
RN 827576-79-4 CAPLUS  
 CN Propanamide, 3-amino-N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]- (9CI)  
 (CA INDEX NAME)



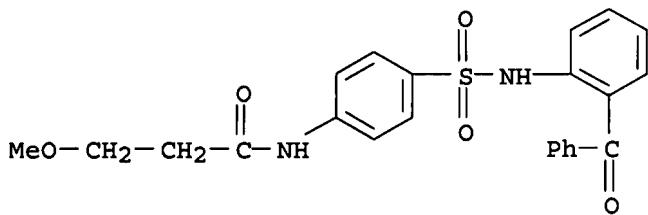
RN 827576-80-7 CAPLUS  
 CN Propanamide, 3-(acetylamino)-N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



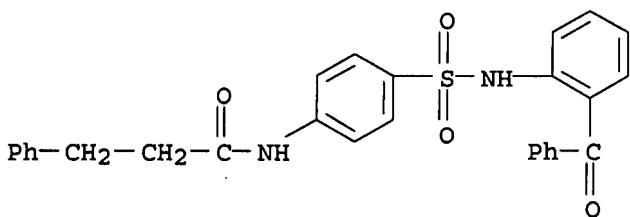
RN 827576-81-8 CAPLUS  
 CN Carbamic acid, [3-[(4-[(2-benzoylphenyl)amino]sulfonyl)phenyl]amino]-3-oxopropyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



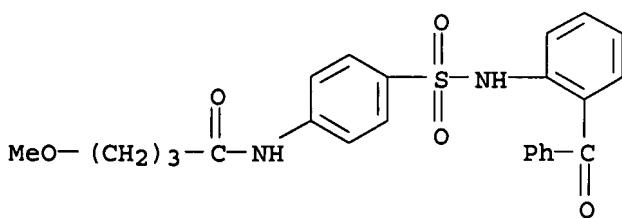
RN 827576-82-9 CAPLUS  
 CN Propanamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-3-methoxy- (9CI) (CA INDEX NAME)



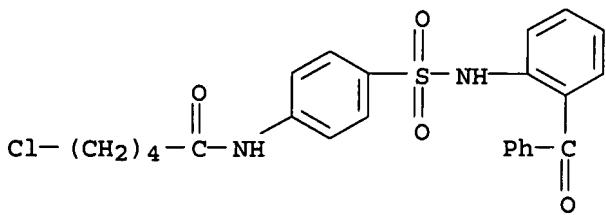
RN 827576-83-0 CAPLUS  
 CN Benzenepropanamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl- (9CI)  
 (CA INDEX NAME)



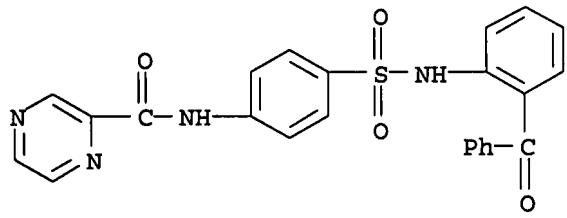
RN 827576-85-2 CAPLUS  
 CN Butanamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl-4-methoxy- (9CI) (CA INDEX NAME)



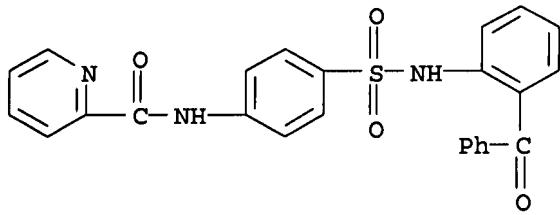
RN 827576-86-3 CAPLUS  
 CN Pentanamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl-5-chloro- (9CI) (CA INDEX NAME)



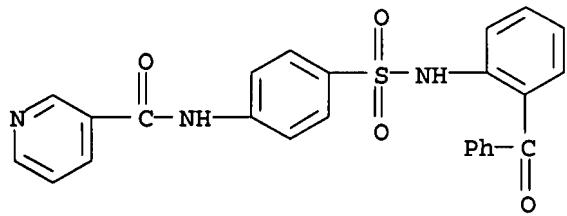
RN 827576-87-4 CAPLUS  
 CN Pyrazinecarboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl- (9CI)  
 (CA INDEX NAME)



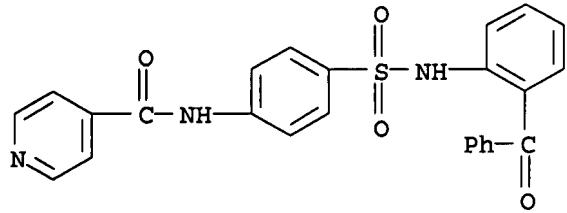
RN 827576-88-5 CAPLUS  
CN 2-Pyridinecarboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-(9CI) (CA INDEX NAME)



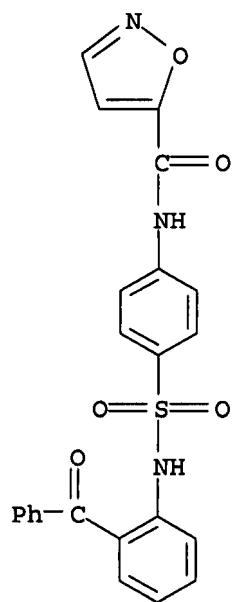
RN 827576-89-6 CAPLUS  
CN 3-Pyridinecarboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-(9CI) (CA INDEX NAME)



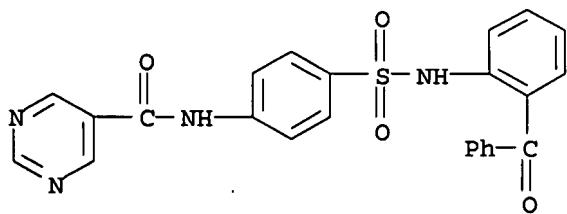
RN 827576-90-9 CAPLUS  
CN 4-Pyridinecarboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-(9CI) (CA INDEX NAME)



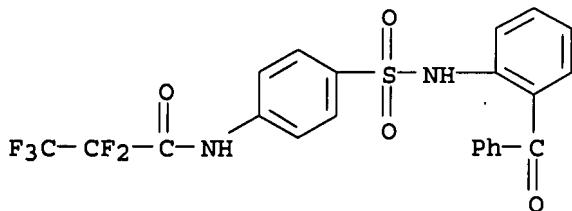
RN 827576-91-0 CAPLUS  
CN 5-Isoxazolecarboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-(9CI) (CA INDEX NAME)



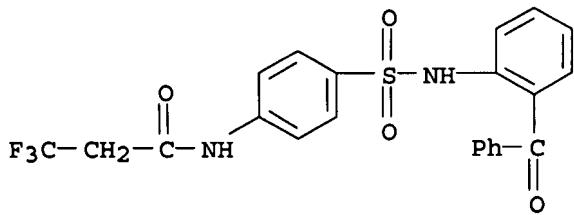
RN 827576-92-1 CAPLUS  
 CN 5-Pyrimidinecarboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



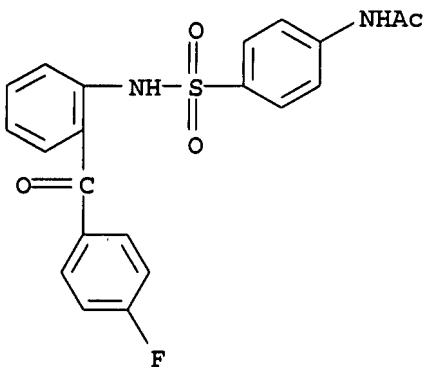
RN 827576-93-2 CAPLUS  
 CN Propanamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-2,2,3,3,3-pentafluoro- (9CI) (CA INDEX NAME)



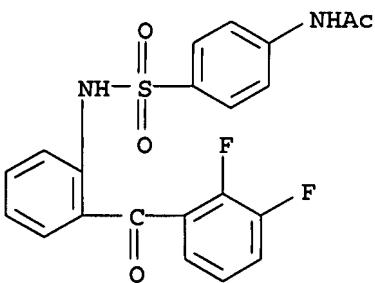
RN 827576-94-3 CAPLUS  
 CN Propanamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-3,3,3-trifluoro- (9CI) (CA INDEX NAME)



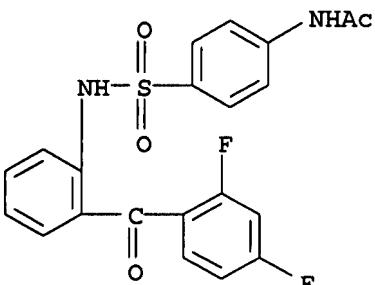
RN 827576-95-4 CAPLUS  
 CN Acetamide, N-[4-[[[2-(4-fluorobenzoyl)phenyl]amino]sulfonyl]phenyl]- (9CI)  
 (CA INDEX NAME)



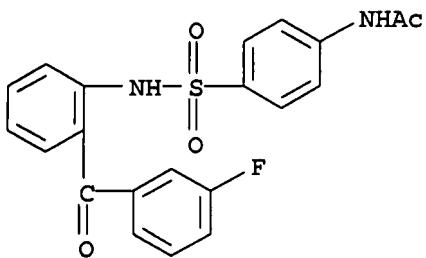
RN 827576-96-5 CAPLUS  
 CN Acetamide, N-[4-[[[2-(2,3-difluorobenzoyl)phenyl]amino]sulfonyl]phenyl]-  
 (9CI) (CA INDEX NAME)



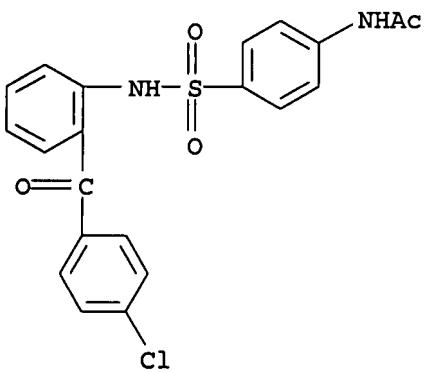
RN 827576-97-6 CAPLUS  
 CN Acetamide, N-[4-[[[2-(2,4-difluorobenzoyl)phenyl]amino]sulfonyl]phenyl]-  
 (9CI) (CA INDEX NAME)



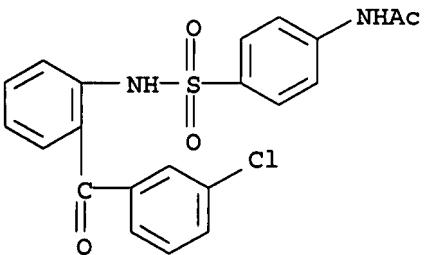
RN 827576-98-7 CAPLUS  
CN Acetamide, N-[4-[[[2-(3-fluorobenzoyl)phenyl]amino]sulfonyl]phenyl]- (9CI)  
(CA INDEX NAME)



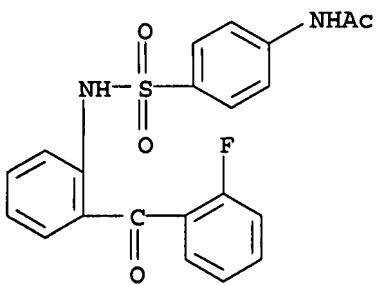
RN 827576-99-8 CAPLUS  
CN Acetamide, N-[4-[[[2-(4-chlorobenzoyl)phenyl]amino]sulfonyl]phenyl]- (9CI)  
(CA INDEX NAME)



RN 827577-01-5 CAPLUS  
CN Acetamide, N-[4-[[[2-(3-chlorobenzoyl)phenyl]amino]sulfonyl]phenyl]- (9CI)  
(CA INDEX NAME)

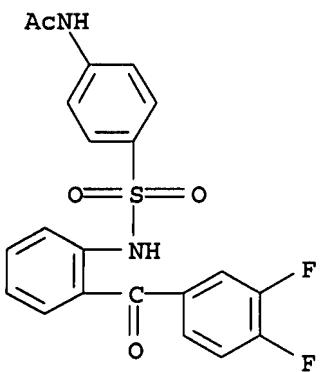


RN 827577-08-2 CAPLUS  
CN Acetamide, N-[4-[[[2-(2-fluorobenzoyl)phenyl]amino]sulfonyl]phenyl]- (9CI)  
(CA INDEX NAME)



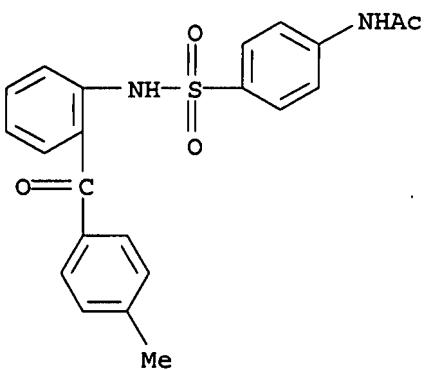
RN 827577-10-6 CAPLUS

CN Acetamide, N-[4-[[[2-(3,4-difluorobenzoyl)phenyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



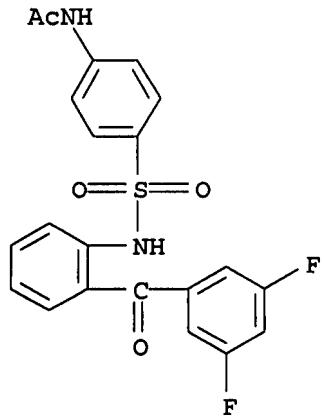
RN 827577-11-7 CAPLUS

CN Acetamide, N-[4-[[[2-(4-methylbenzoyl)phenyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)

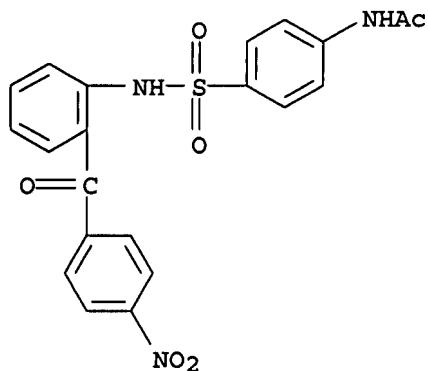


RN 827577-13-9 CAPLUS

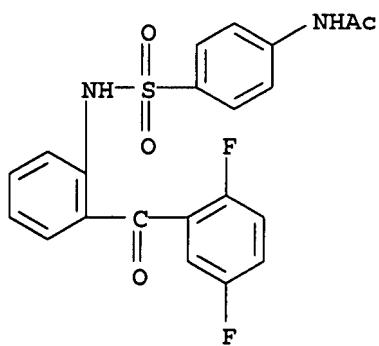
CN Acetamide, N-[4-[[[2-(3,5-difluorobenzoyl)phenyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



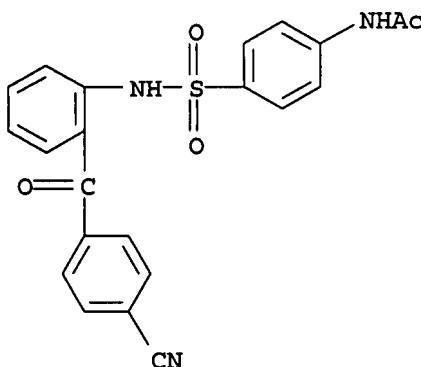
RN 827577-14-0 CAPLUS  
CN Acetamide, N-[4-[[[2-(4-nitrobenzoyl)phenyl]amino]sulfonyl]phenyl]- (9CI)  
(CA INDEX NAME)



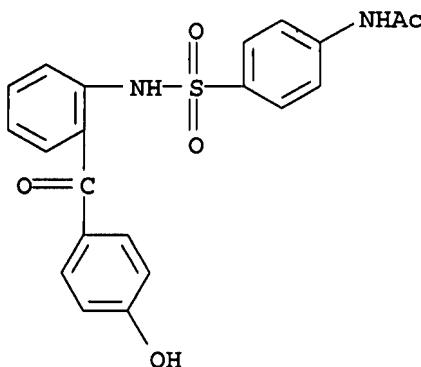
RN 827577-23-1 CAPLUS  
CN Acetamide, N-[4-[[[2-(2,5-difluorobenzoyl)phenyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



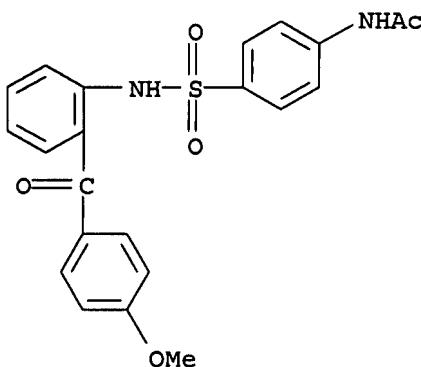
RN 827577-25-3 CAPLUS  
CN Acetamide, N-[4-[[[2-(4-cyanobenzoyl)phenyl]amino]sulfonyl]phenyl]- (9CI)  
(CA INDEX NAME)



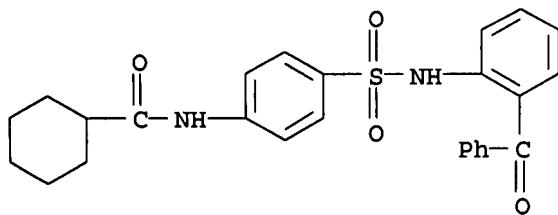
RN 827577-29-7 CAPLUS  
CN Acetamide, N-[4-[[[2-(4-hydroxybenzoyl)phenyl]amino]sulfonyl]phenyl]-  
(9CI) (CA INDEX NAME)



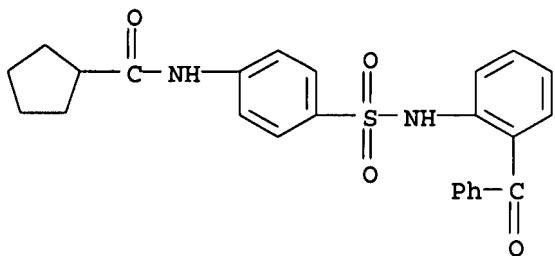
RN 827577-30-0 CAPLUS  
CN Acetamide, N-[4-[[[2-(4-methoxybenzoyl)phenyl]amino]sulfonyl]phenyl]-  
(9CI) (CA INDEX NAME)



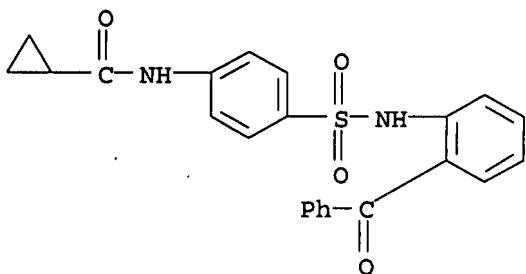
RN 827577-35-5 CAPLUS  
CN Cyclohexanecarboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-  
(9CI) (CA INDEX NAME)



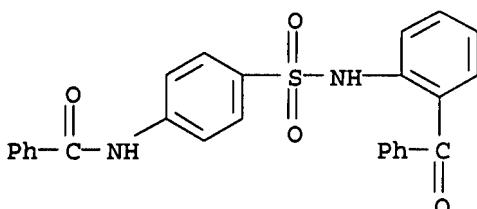
RN 827577-36-6 CAPLUS  
CN Cyclopentanecarboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-  
(9CI) (CA INDEX NAME)



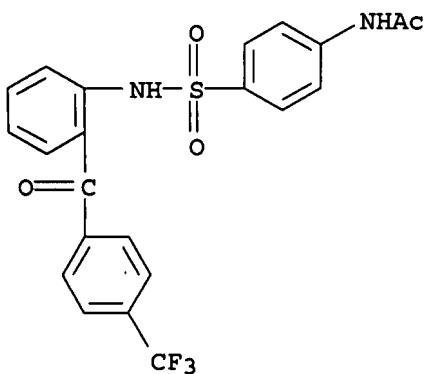
RN 827577-37-7 CAPLUS  
CN Cyclopropanecarboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-  
(9CI) (CA INDEX NAME)



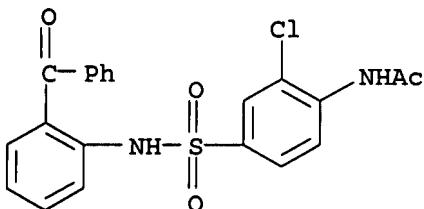
RN 827577-38-8 CAPLUS  
CN Benzamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]- (9CI) (CA  
INDEX NAME)



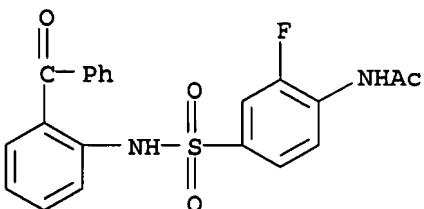
RN 827577-39-9 CAPLUS  
CN Acetamide, N-[4-[[[2-[4-(trifluoromethyl)benzoyl]phenyl]amino]sulfonyl]phe  
nyl]- (9CI) (CA INDEX NAME)



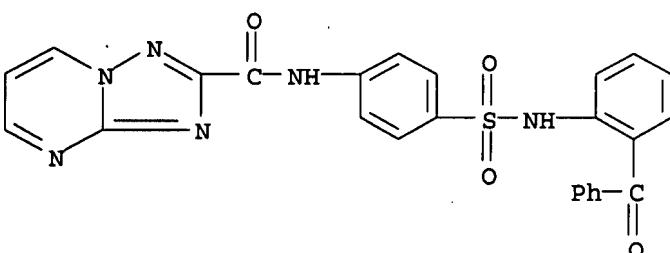
RN 827577-40-2 CAPLUS  
 CN Acetamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]-2-chlorophenyl]- (9CI)  
 (CA INDEX NAME)



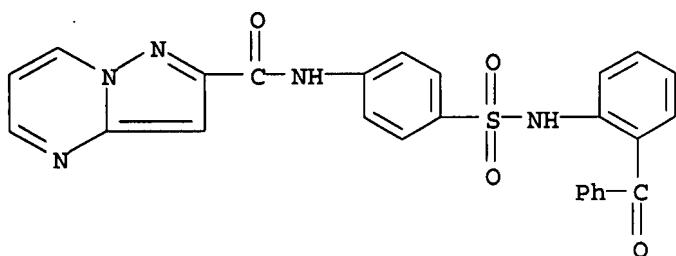
RN 827577-41-3 CAPLUS  
 CN Acetamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]-2-fluorophenyl]- (9CI)  
 (CA INDEX NAME)



RN 827577-42-4 CAPLUS  
 CN [1,2,4]Triazolo[1,5-a]pyrimidine-2-carboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)

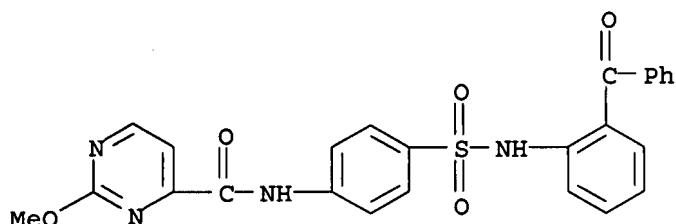


RN 827577-43-5 CAPLUS  
 CN Pyrazolo[1,5-a]pyrimidine-2-carboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



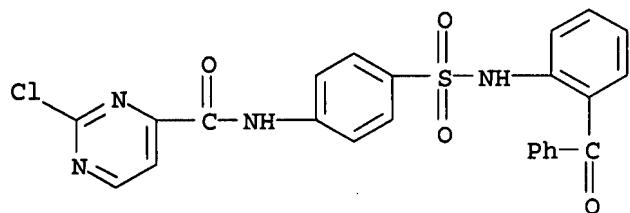
RN 827577-44-6 CAPLUS

CN 4-Pyrimidinecarboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-2-methoxy- (9CI) (CA INDEX NAME)



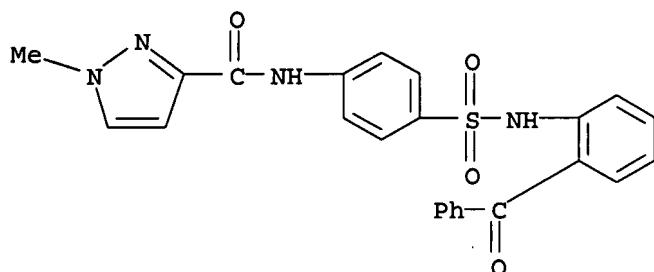
RN 827577-45-7 CAPLUS

CN 4-Pyrimidinecarboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-2-chloro- (9CI) (CA INDEX NAME)



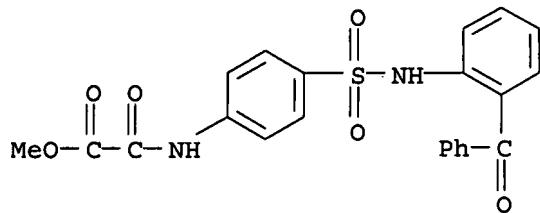
RN 827577-46-8 CAPLUS

CN 1H-Pyrazole-3-carboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-1-methyl- (9CI) (CA INDEX NAME)

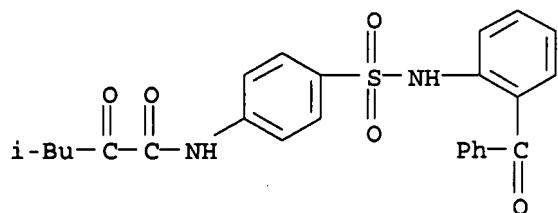


RN 827577-47-9 CAPLUS

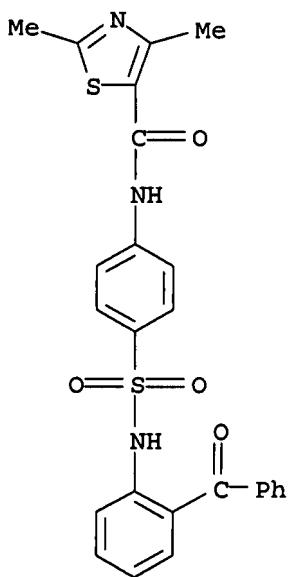
CN Acetic acid, [[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]amino]oxo-, methyl ester (9CI) (CA INDEX NAME)



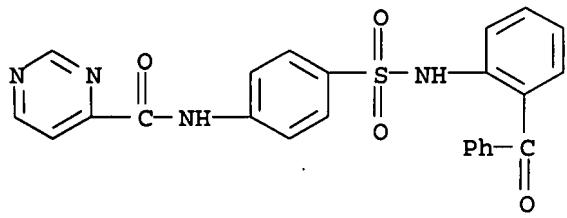
RN 827577-48-0 CAPLUS  
 CN Pentanamide, N-[4-[[2-benzoylphenyl]amino]sulfonyl]phenyl]-4-methyl-2-oxo-  
     (9CI) (CA INDEX NAME)



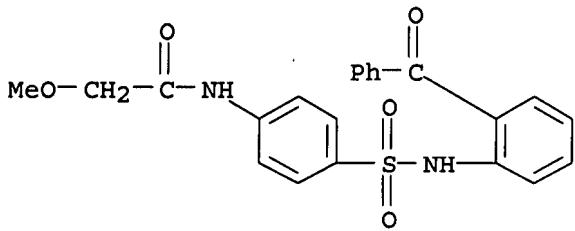
RN 827577-49-1 CAPLUS  
 CN 5-Thiazolecarboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-2,4-  
     dimethyl- (9CI) (CA INDEX NAME)



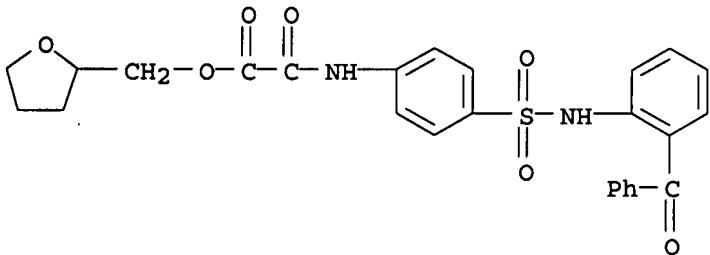
RN 827577-50-4 CAPLUS  
 CN 4-Pyrimidinecarboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-  
     (9CI) (CA INDEX NAME)



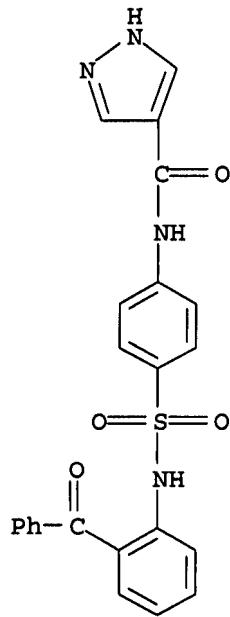
RN 827577-51-5 CAPLUS  
CN Acetamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-2-methoxy- (9CI)  
(CA INDEX NAME)



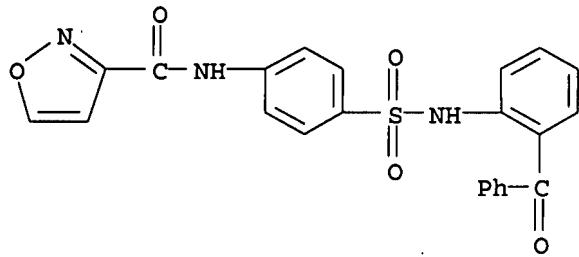
RN 827577-52-6 CAPLUS  
CN Acetic acid, [[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]amino]oxo-,  
(tetrahydro-2-furanyl)methyl ester (9CI) (CA INDEX NAME)



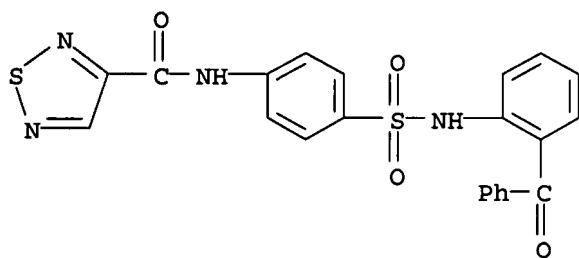
RN 827577-53-7 CAPLUS  
CN 1H-Pyrazole-4-carboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-  
(9CI) (CA INDEX NAME)



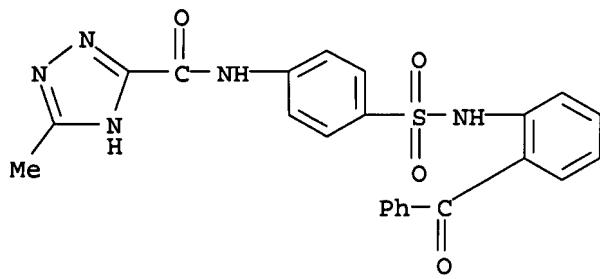
RN 827577-54-8 CAPLUS  
 CN 3-Isoxazolecarboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-  
 (9CI) (CA INDEX NAME)



RN 827577-55-9 CAPLUS  
 CN 1,2,5-Thiadiazole-3-carboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



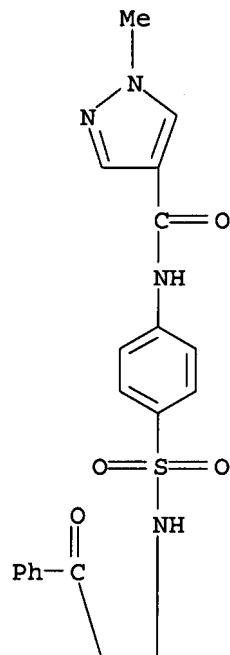
RN 827577-56-0 CAPLUS  
 CN 1H-1,2,4-Triazole-3-carboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-5-methyl- (9CI) (CA INDEX NAME)



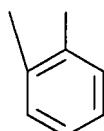
RN 827577-57-1 CAPLUS

CN 1H-Pyrazole-4-carboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-1-methyl- (9CI) (CA INDEX NAME)

PAGE 1-A

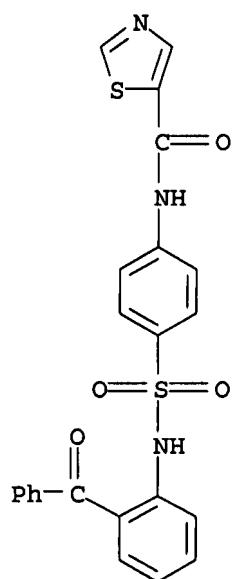


PAGE 2-A

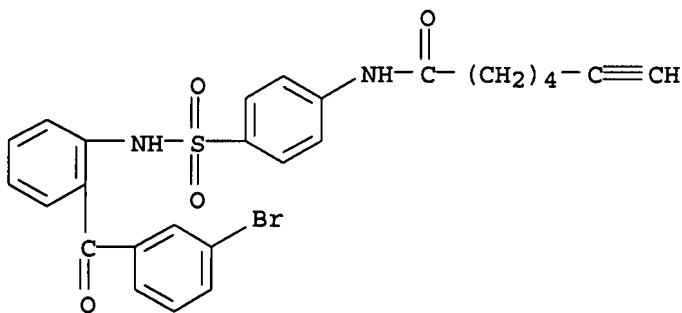


RN 827577-58-2 CAPLUS

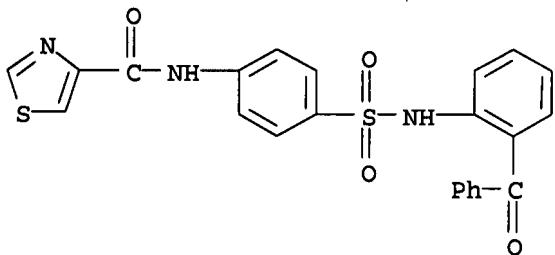
CN 5-Thiazolecarboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



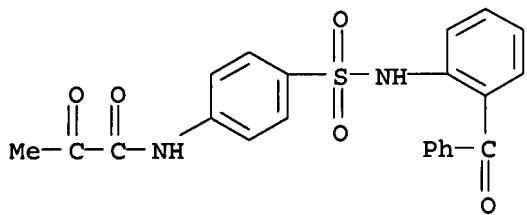
RN 827577-59-3 CAPLUS  
 CN 6-Heptynamide, N-[4-[[[2-(3-bromobenzoyl)phenyl]amino]sulfonyl]phenyl]-  
 (9CI) (CA INDEX NAME)



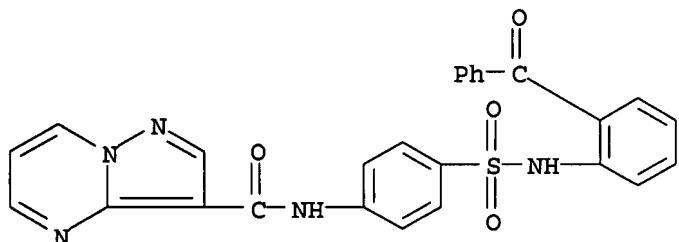
RN 827577-60-6 CAPLUS  
 CN 4-Thiazolecarboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-  
 (9CI) (CA INDEX NAME)



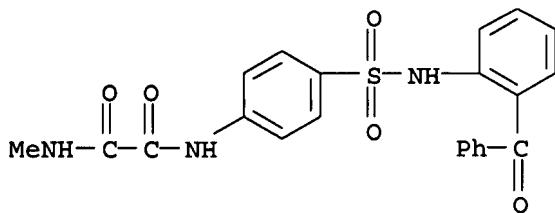
RN 827577-61-7 CAPLUS  
 CN Propanamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-2-oxo- (9CI)  
 (CA INDEX NAME)



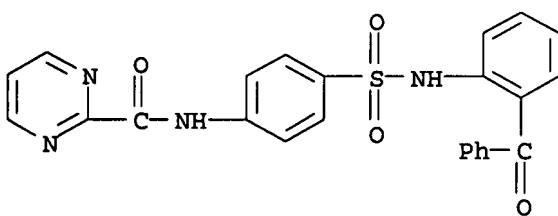
RN 827577-62-8 CAPLUS  
 CN Pyrazolo[1,5-a]pyrimidine-3-carboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl- (9CI) (CA INDEX NAME)



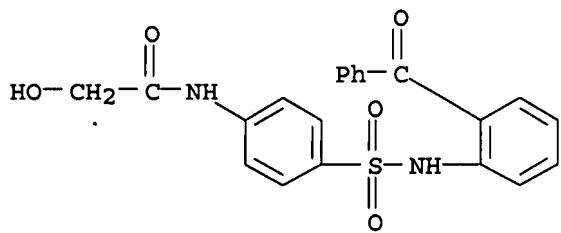
RN 827577-63-9 CAPLUS  
 CN Ethanediamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl-N'-methyl- (9CI) (CA INDEX NAME)



RN 827577-64-0 CAPLUS  
 CN 2-Pyrimidinecarboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl- (9CI) (CA INDEX NAME)

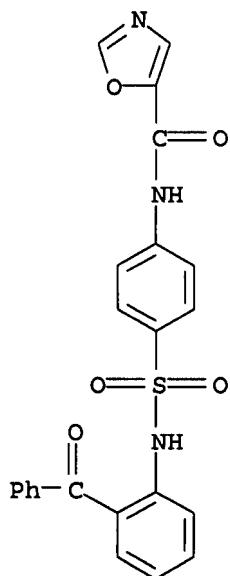


RN 827577-65-1 CAPLUS  
 CN Acetamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl-2-hydroxy- (9CI) (CA INDEX NAME)



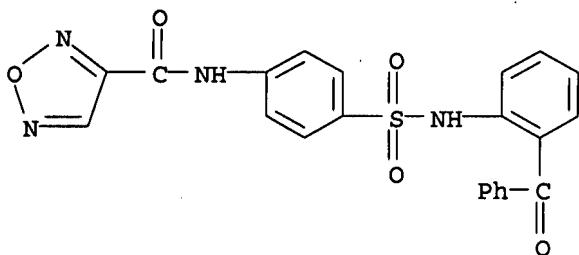
RN 827577-66-2 CAPLUS

CN 5-Oxazolecarboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



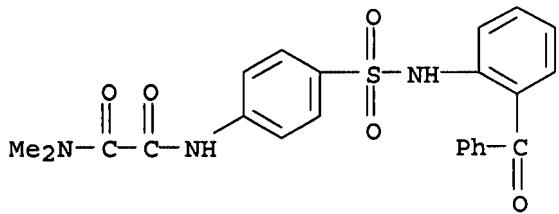
RN 827577-67-3 CAPLUS

CN 1,2,5-Oxadiazole-3-carboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)

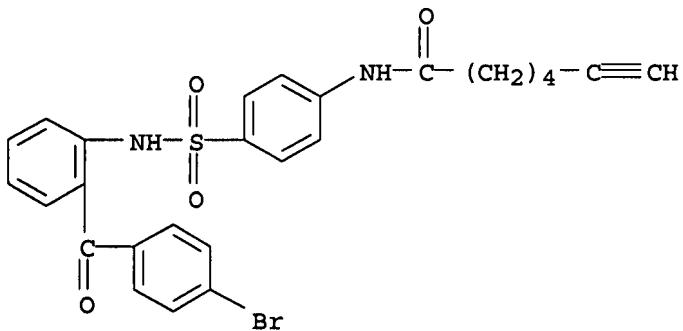


RN 827577-68-4 CAPLUS

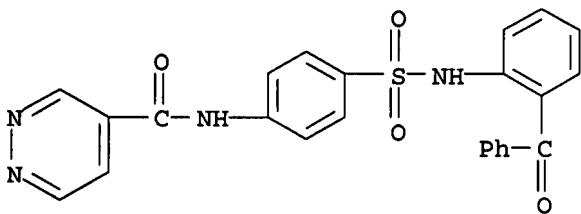
CN Ethanediame, N'-(4-[(2-benzoylphenyl)amino]sulfonyl)phenyl-N,N-dimethyl- (9CI) (CA INDEX NAME)



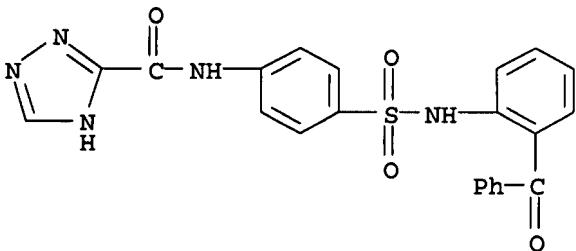
RN 827577-69-5 CAPLUS  
 CN 6-Heptynamide, N-[4-[[[2-(4-bromobenzoyl)phenyl]amino]sulfonyl]phenyl]-  
 (9CI) (CA INDEX NAME)



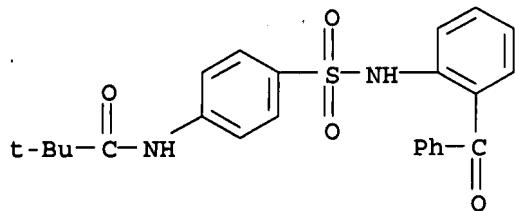
RN 827577-70-8 CAPLUS  
 CN 4-Pyridazinecarboxamide, N-[4-[[2-benzoylphenyl]amino]sulfonyl]phenyl]-  
 (9CI) (CA INDEX NAME)



RN 827577-71-9 CAPLUS  
 CN 1H-1,2,4-Triazole-3-carboxamide, N-[4-[[2-benzoylphenyl]amino]sulfonyl]phenyl]-  
 (9CI) (CA INDEX NAME)

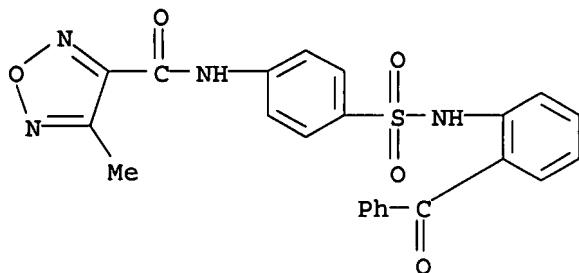


RN 827577-72-0 CAPLUS  
 CN Propanamide, N-[4-[[2-benzoylphenyl]amino]sulfonyl]phenyl]-2,2-dimethyl-  
 (9CI) (CA INDEX NAME)



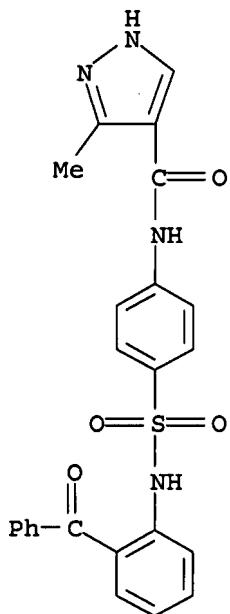
RN 827577-73-1 CAPLUS

CN 1,2,5-Oxadiazole-3-carboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-4-methyl- (9CI) (CA INDEX NAME)



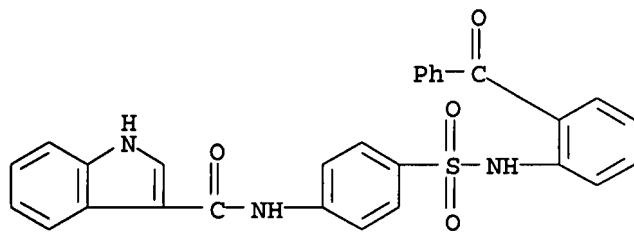
RN 827577-74-2 CAPLUS

CN 1H-Pyrazole-4-carboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-3-methyl- (9CI) (CA INDEX NAME)



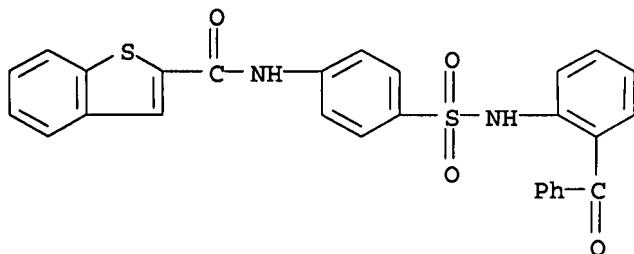
RN 827577-75-3 CAPLUS

CN 1H-Indole-3-carboxamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



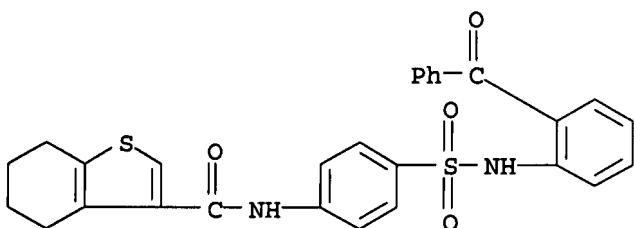
RN 827577-76-4 CAPLUS

CN Benzo[b]thiophene-2-carboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl- (9CI) (CA INDEX NAME)



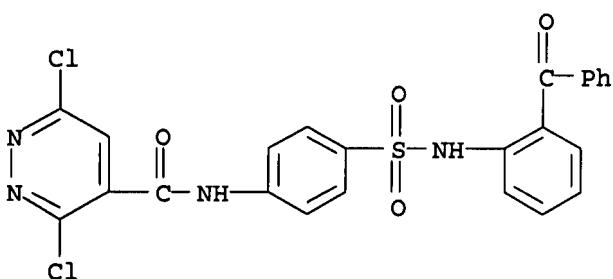
RN 827577-77-5 CAPLUS

CN Benzo[b]thiophene-3-carboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl-4,5,6,7-tetrahydro- (9CI) (CA INDEX NAME)



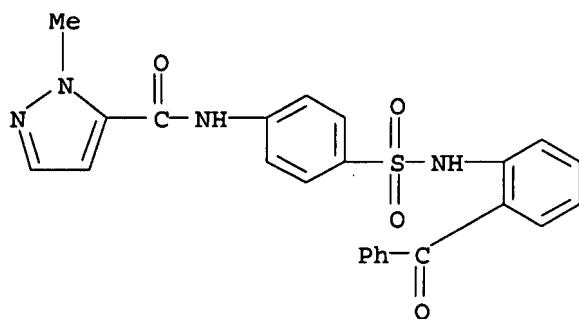
RN 827577-78-6 CAPLUS

CN 4-Pyridazinecarboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl-3,6-dichloro- (9CI) (CA INDEX NAME)



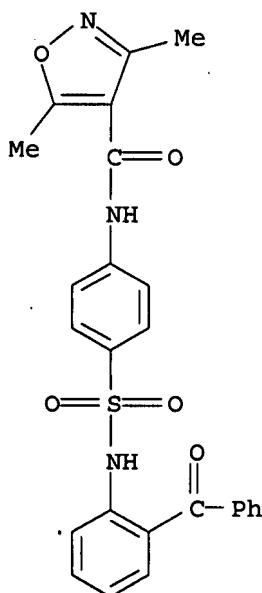
RN 827577-79-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl-1-methyl- (9CI) (CA INDEX NAME)



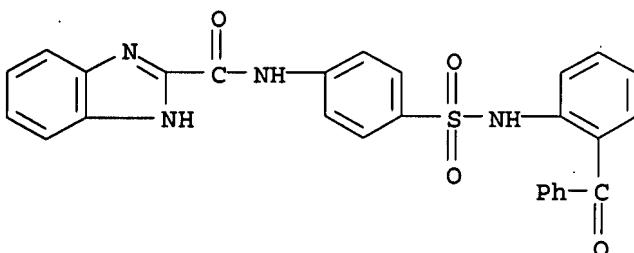
RN 827577-80-0 CAPLUS

CN 4-Isoxazolecarboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-3,5-dimethyl- (9CI) (CA INDEX NAME)



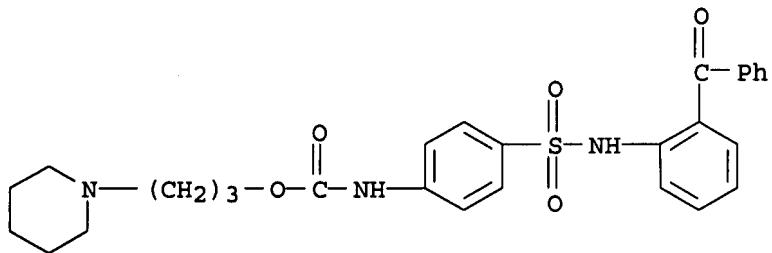
RN 827577-81-1 CAPLUS

CN 1H-Benzimidazole-2-carboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)

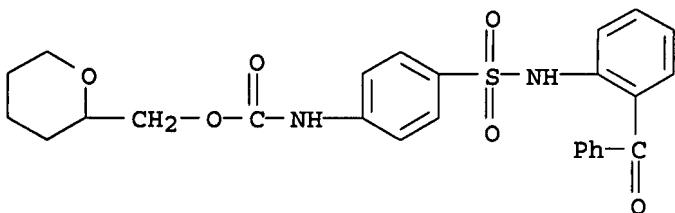


RN 827578-26-7 CAPLUS

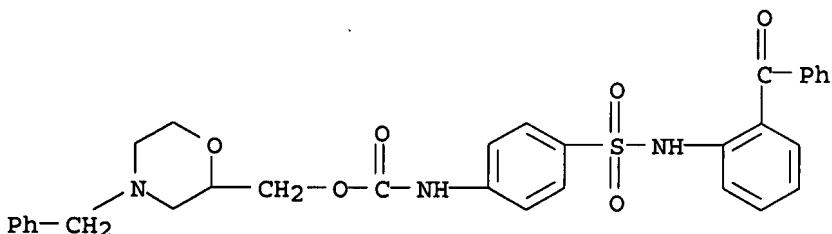
CN Carbamic acid, [4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]-, 3-(1-piperidinyl)propyl ester (9CI) (CA INDEX NAME)



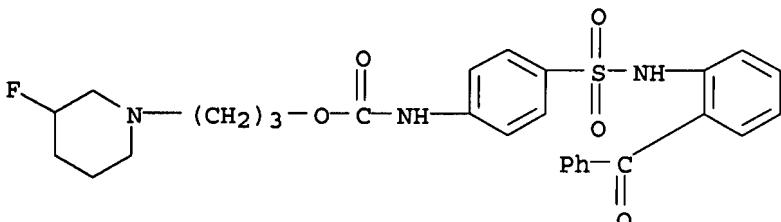
RN 827578-27-8 CAPLUS  
 CN Carbamic acid, [4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-, (tetrahydro-2H-pyran-2-yl)methyl ester (9CI) (CA INDEX NAME)



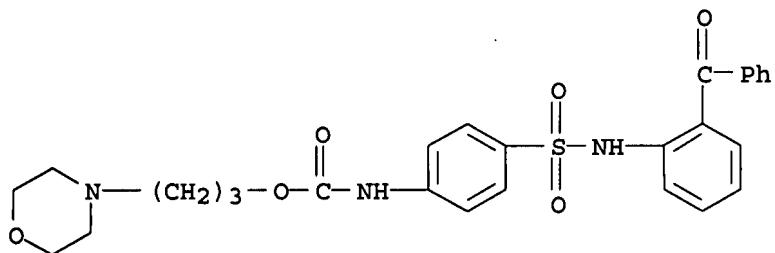
RN 827578-28-9 CAPLUS  
 CN Carbamic acid, [4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-, [4-(phenylmethyl)-2-morpholinyl]methyl ester (9CI) (CA INDEX NAME)



RN 827578-29-0 CAPLUS  
 CN Carbamic acid, [4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-, 3-(3-fluoro-1-piperidinyl)propyl ester (9CI) (CA INDEX NAME)



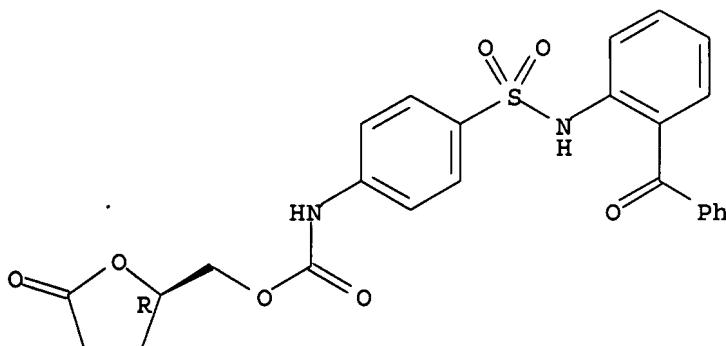
RN 827578-30-3 CAPLUS  
 CN Carbamic acid, [4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-, 3-(4-morpholinyl)propyl ester (9CI) (CA INDEX NAME)



RN 827578-31-4 CAPLUS

CN Carbamic acid, [4-[[[(2-benzoylphenyl)amino]sulfonyl]phenyl]-, [(2R)-tetrahydro-5-oxo-2-furanyl]methyl ester (9CI) (CA INDEX NAME)

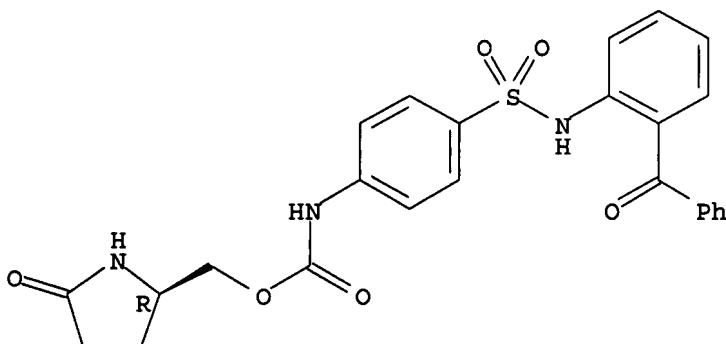
Absolute stereochemistry.



RN 827578-32-5 CAPLUS

CN Carbamic acid, [4-[[[(2-benzoylphenyl)amino]sulfonyl]phenyl]-, [(2R)-5-oxo-2-pyrrolidinyl]methyl ester (9CI) (CA INDEX NAME)

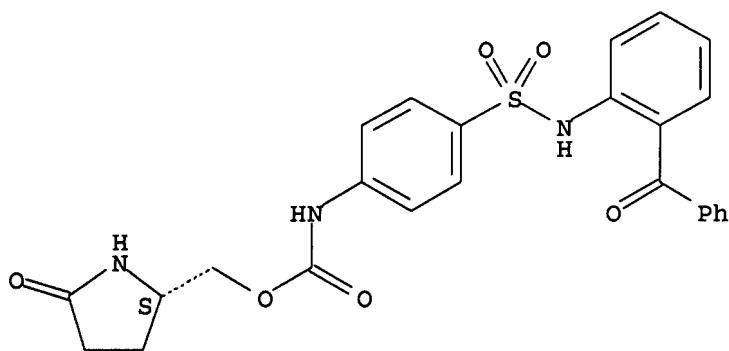
Absolute stereochemistry.



RN 827578-33-6 CAPLUS

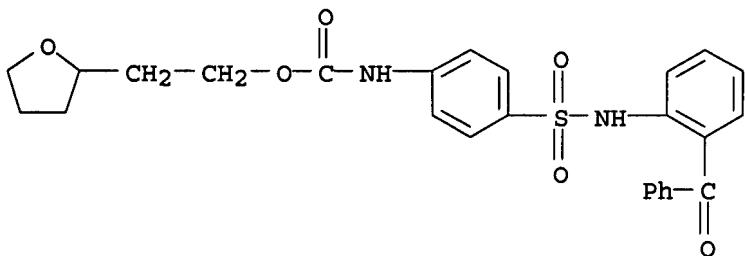
CN Carbamic acid, [4-[[[(2-benzoylphenyl)amino]sulfonyl]phenyl]-, [(2S)-5-oxo-2-pyrrolidinyl]methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 827578-35-8 CAPLUS

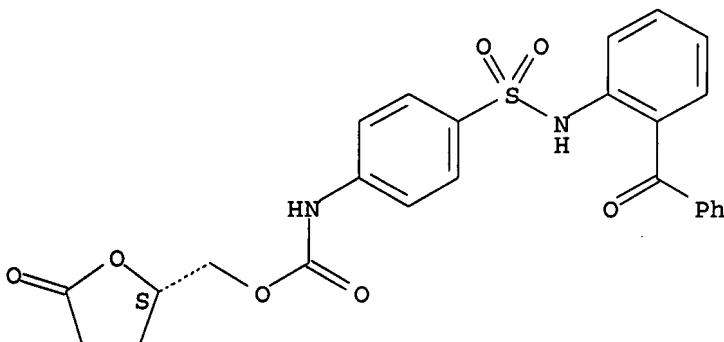
CN Carbamic acid, [4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-, 2-(tetrahydro-2-furanyl)ethyl ester (9CI) (CA INDEX NAME)



RN 827578-36-9 CAPLUS

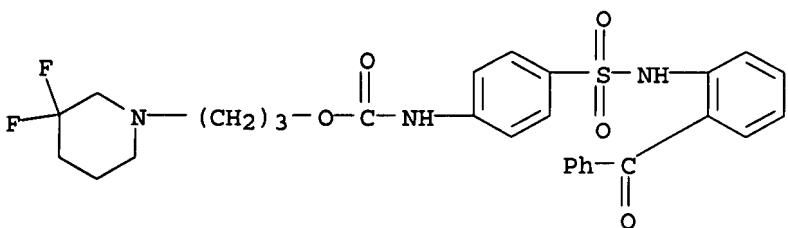
CN Carbamic acid, [4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-, [(2S)-tetrahydro-5-oxo-2-furanyl]methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



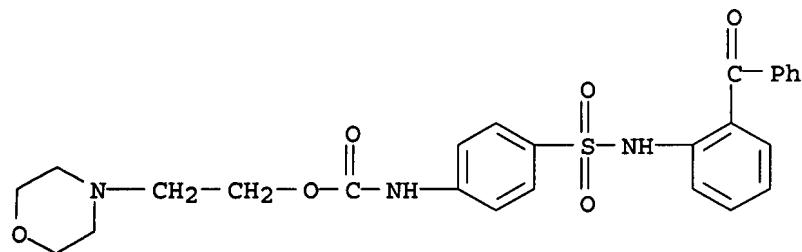
RN 827578-37-0 CAPLUS

CN Carbamic acid, [4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-, 3-(3,3-difluoro-1-piperidinyl)propyl ester (9CI) (CA INDEX NAME)



RN 827578-38-1 CAPLUS

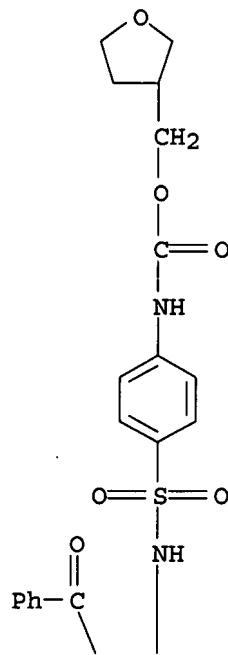
CN Carbamic acid, [4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-, 2-(4-morpholinyl)ethyl ester (9CI) (CA INDEX NAME)



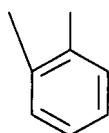
RN 827578-39-2 CAPLUS

CN Carbamic acid, [4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-, (tetrahydro-3-furanyl)methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



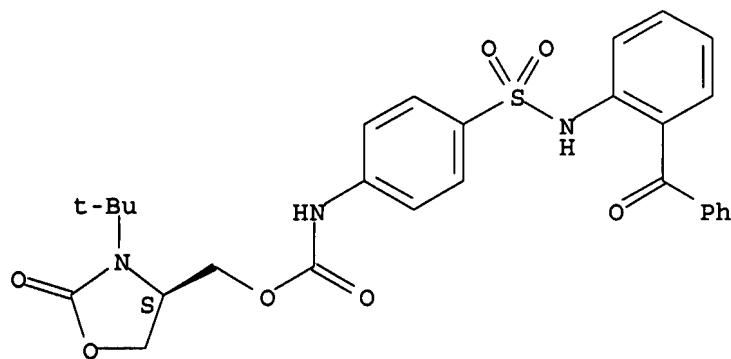
PAGE 2-A



RN 827578-40-5 CAPLUS

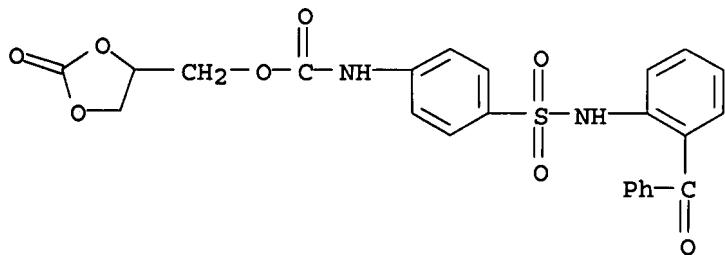
CN Carbamic acid, [4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-, [(4S)-3-(1,1-dimethylethyl)-2-oxo-4-oxazolidinyl]methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 827578-41-6 CAPLUS

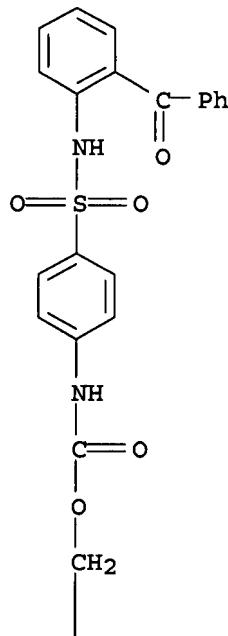
CN Carbamic acid, [4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-, (2-oxo-1,3-dioxolan-4-yl)methyl ester (9CI) (CA INDEX NAME)

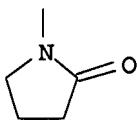


RN 827578-43-8 CAPLUS

CN Carbamic acid, [4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-, (2-oxo-1-pyrrolidinyl)methyl ester (9CI) (CA INDEX NAME)

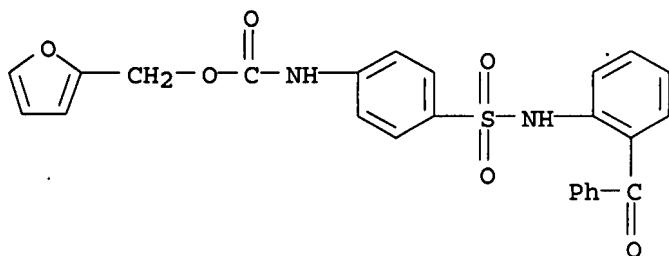
PAGE 1-A





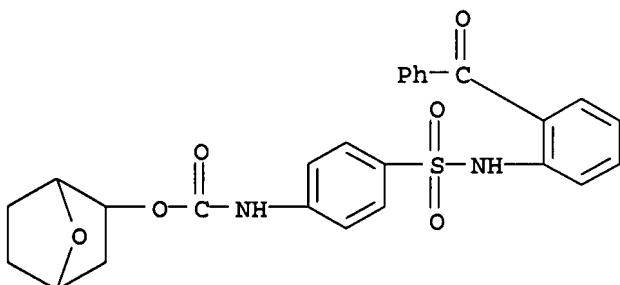
RN 827578-44-9 CAPLUS

CN Carbamic acid, [4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-, 2-furanylmethyl ester (9CI) (CA INDEX NAME)



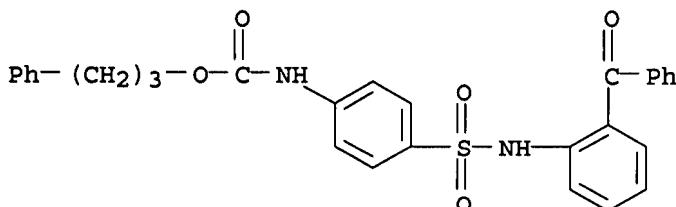
RN 827578-45-0 CAPLUS

CN Carbamic acid, [4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-, 7-oxabicyclo[2.2.1]hept-2-yl ester (9CI) (CA INDEX NAME)



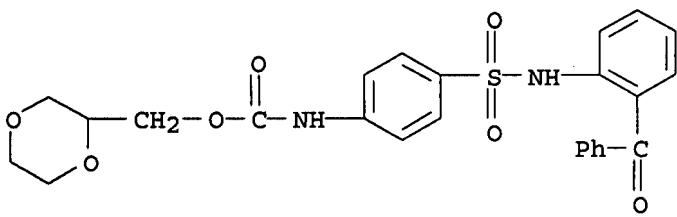
RN 827578-46-1 CAPLUS

CN Carbamic acid, [4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-, 3-phenylpropyl ester (9CI) (CA INDEX NAME)

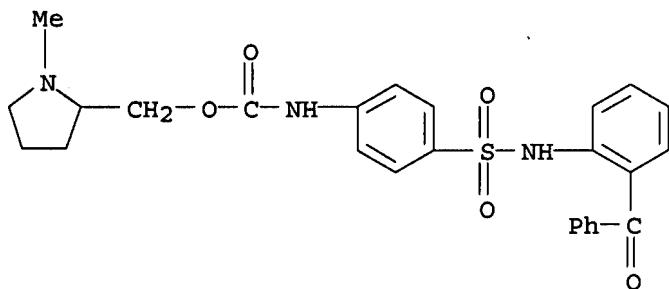


RN 827578-49-4 CAPLUS

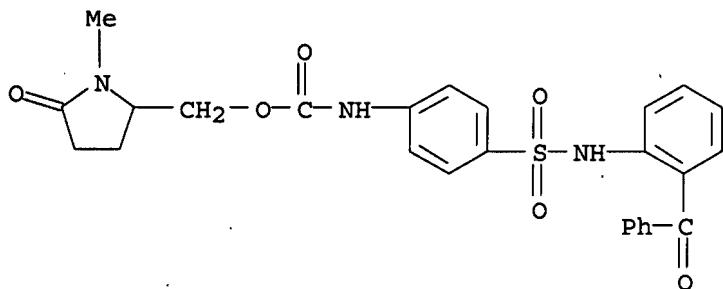
CN Carbamic acid, [4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-, 1,4-dioxan-2-ylmethyl ester (9CI) (CA INDEX NAME)



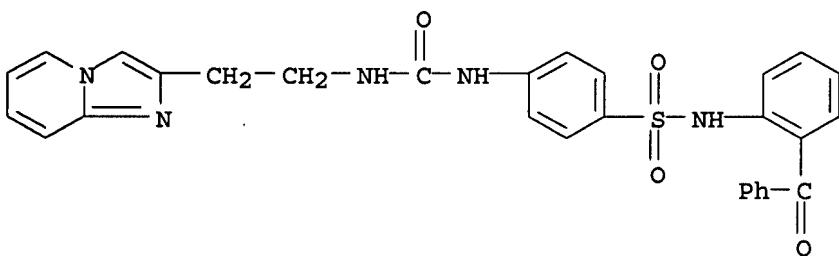
RN 827578-50-7 CAPLUS  
 CN Carbamic acid, [4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-, (1-methyl-2-pyrrolidinyl)methyl ester (9CI) (CA INDEX NAME)



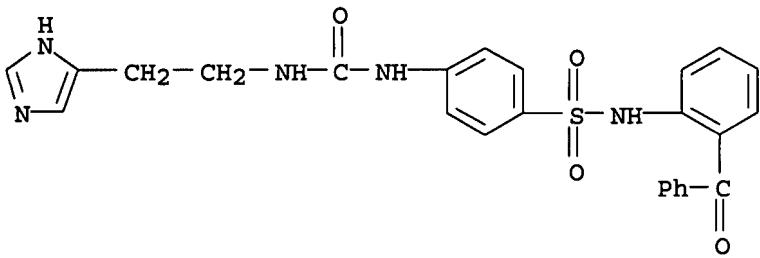
RN 827578-51-8 CAPLUS  
 CN Carbamic acid, [4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]-, (1-methyl-5-oxo-2-pyrrolidinyl)methyl ester (9CI) (CA INDEX NAME)



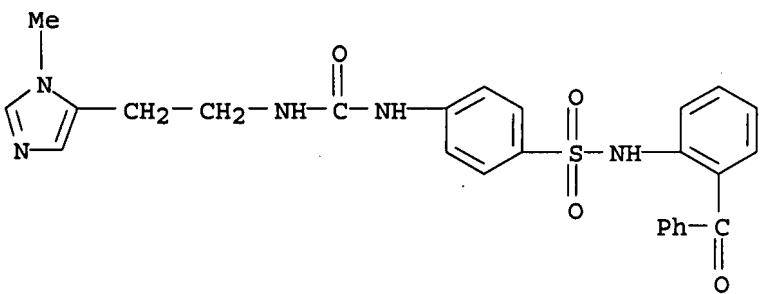
RN 827578-61-0 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(2-imidazo[1,2-a]pyridin-2-ylethyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



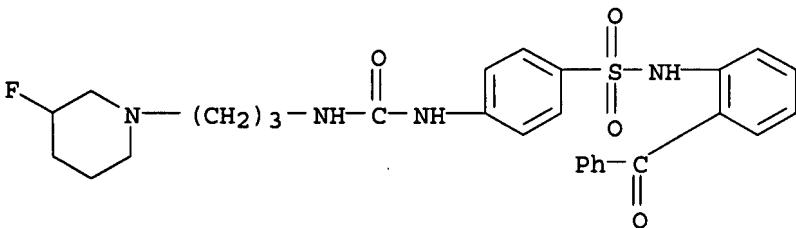
RN 827578-62-1 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[[2-(1H-imidazol-4-yl)ethyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



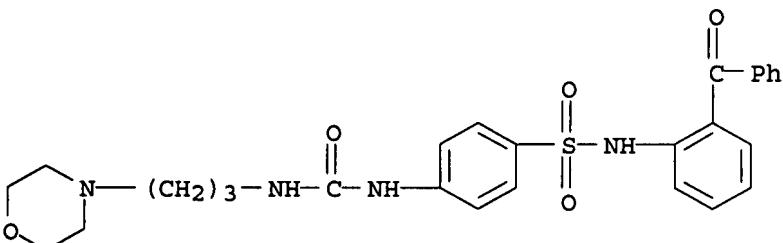
RN 827578-63-2 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[2-(1-methyl-1H-imidazol-5-yl)ethyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



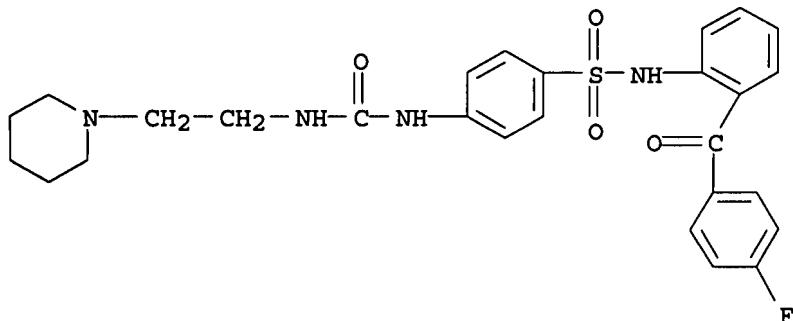
RN 827578-64-3 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[3-(3-fluoro-1-piperidinyl)propyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



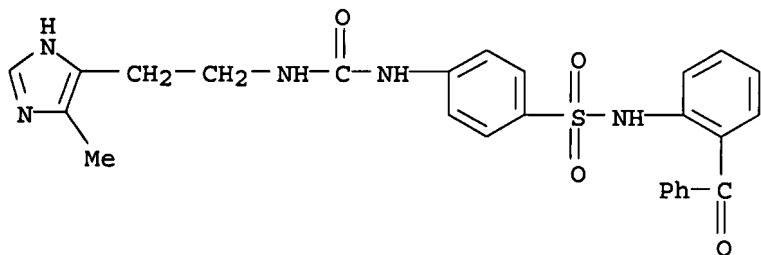
RN 827578-65-4 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[3-(4-morpholinyl)propyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



RN 827578-66-5 CAPLUS  
 CN Benzenesulfonamide, N-[2-(4-fluorobenzoyl)phenyl]-4-[[[2-(1-piperidinyl)ethyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)

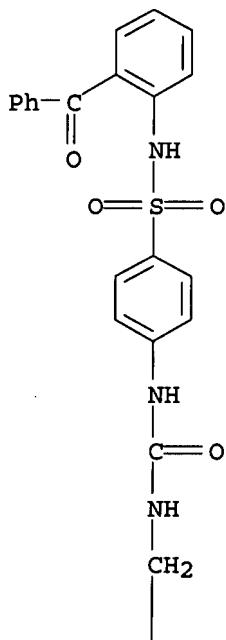


RN 827578-67-6 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[[2-(5-methyl-1H-imidazol-4-yl)ethyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)

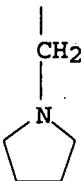


RN 827578-68-7 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[[2-(1-pyrrolidinyl)ethyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-A

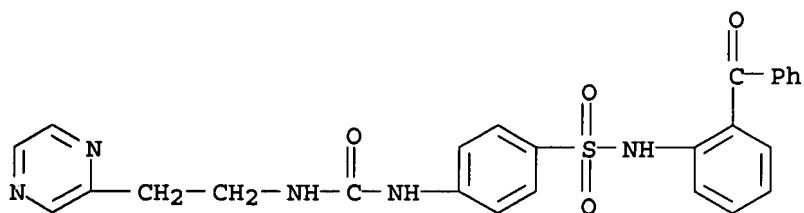


PAGE 2-A



RN 827578-69-8 CAPLUS

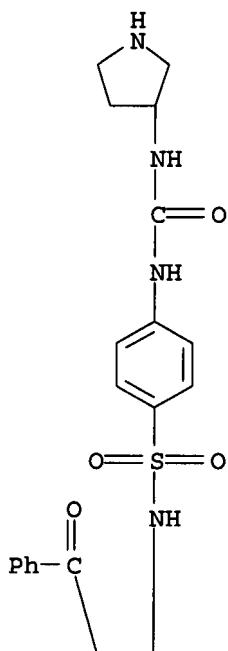
CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(2-pyrazinylethyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)

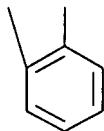


RN 827578-70-1 CAPLUS

CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(3-pyrrolidinylamino)carbonyl]amino]- (9CI) (CA INDEX NAME)

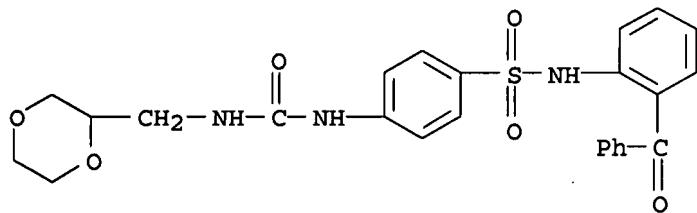
PAGE 1-A





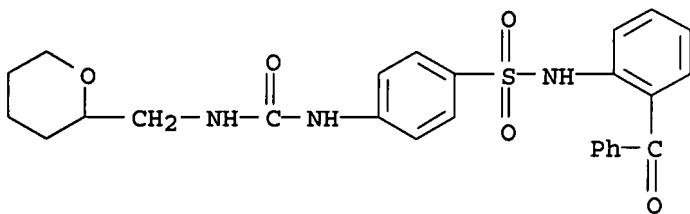
RN 827578-71-2 CAPLUS

CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(1,4-dioxan-2-ylmethyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



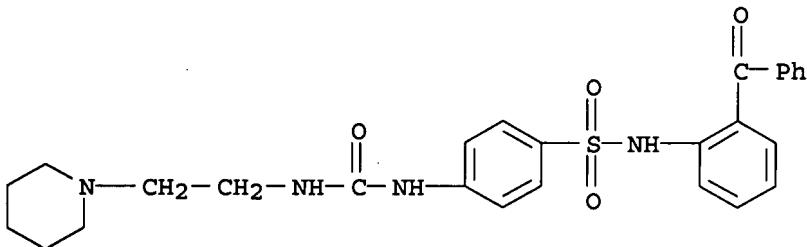
RN 827578-72-3 CAPLUS

CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[[tetrahydro-2H-pyran-2-yl)methyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



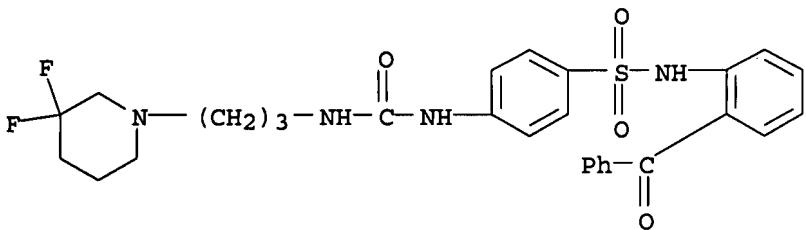
RN 827578-73-4 CAPLUS

CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[2-(1-piperidinyl)ethyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)

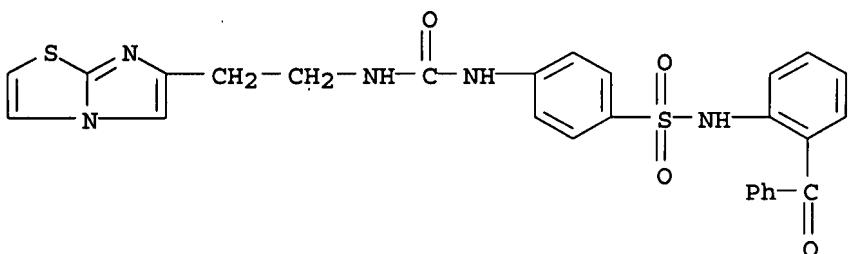


RN 827578-74-5 CAPLUS

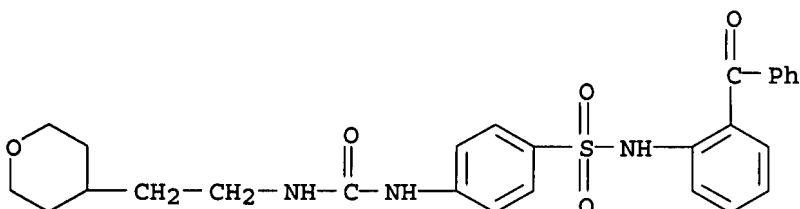
CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[3-(3,3-difluoro-1-piperidinyl)propyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



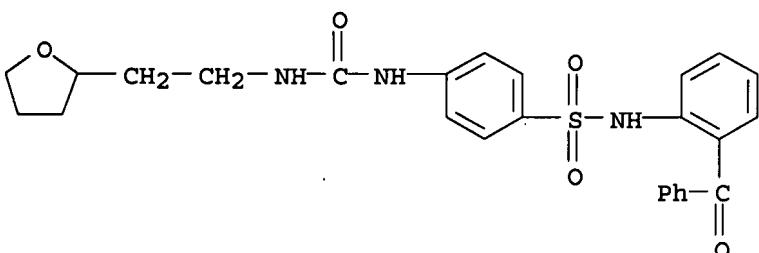
RN 827578-75-6 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(2-imidazo[2,1-b]thiazol-6-ylethyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



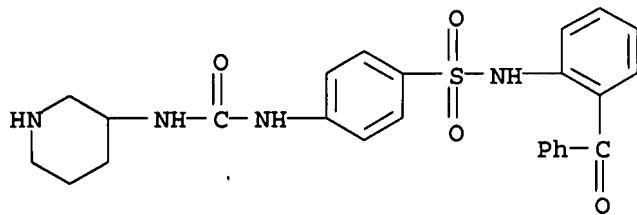
RN 827578-77-8 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[[2-(tetrahydro-2H-pyran-4-yl)ethyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



RN 827578-78-9 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[[2-(tetrahydro-2-furanyl)ethyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)

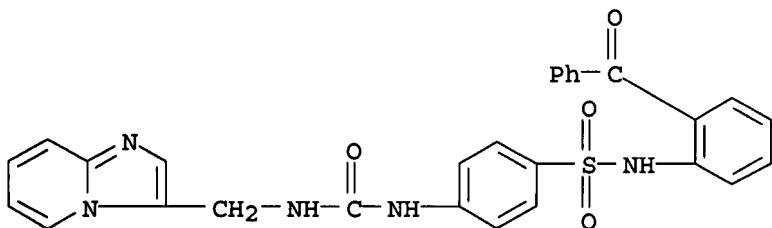


RN 827578-79-0 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(3-piperidinylamino)carbonyl]amino]- (9CI) (CA INDEX NAME)



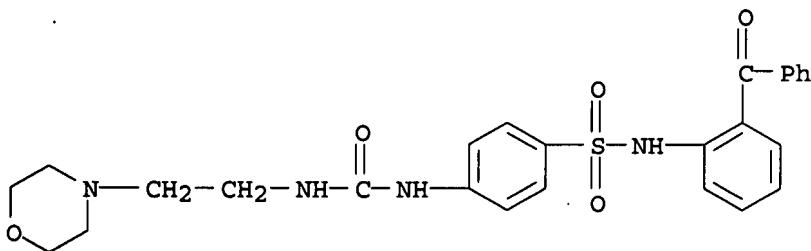
RN 827578-80-3 CAPLUS

CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(imidazo[1,2-a]pyridin-3-ylmethyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



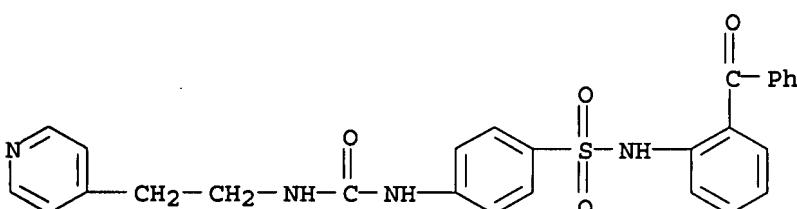
RN 827578-81-4 CAPLUS

CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[[2-(4-morpholinyl)ethyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



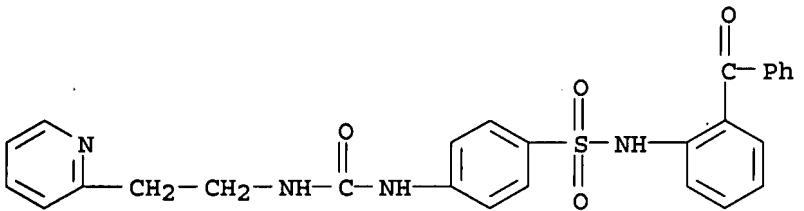
RN 827578-82-5 CAPLUS

CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[[2-(4-pyridinyl)ethyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)

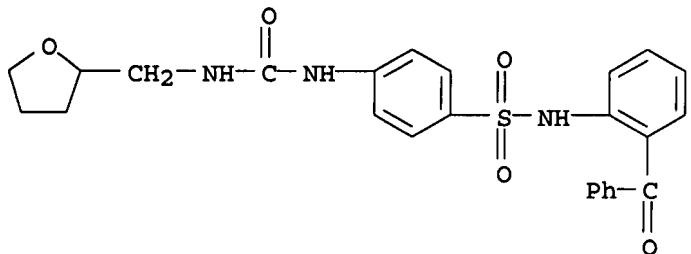


RN 827578-83-6 CAPLUS

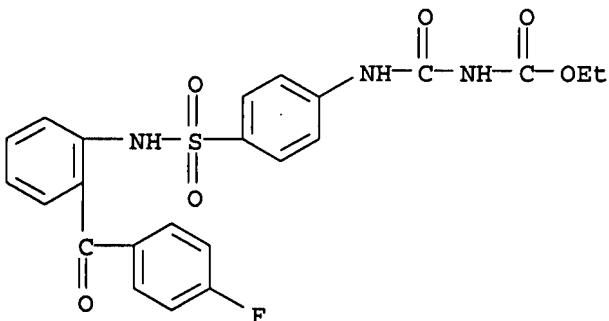
CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[[2-(2-pyridinyl)ethyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



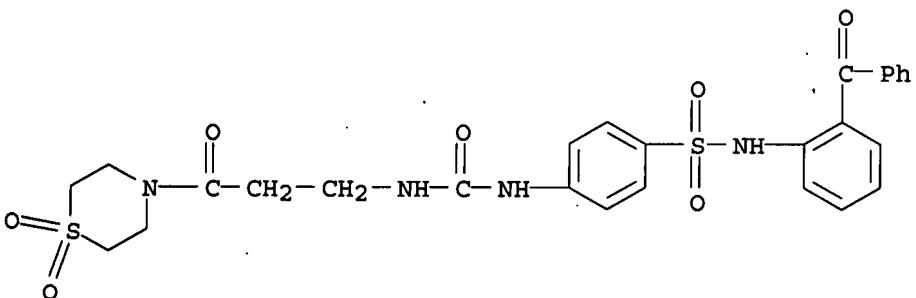
RN 827578-84-7 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[[(tetrahydro-2-furanyl)methyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



RN 827578-85-8 CAPLUS  
 CN Carbamic acid, [[4-[[[2-(4-fluorobenzoyl)phenyl]amino]sulfonyl]phenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

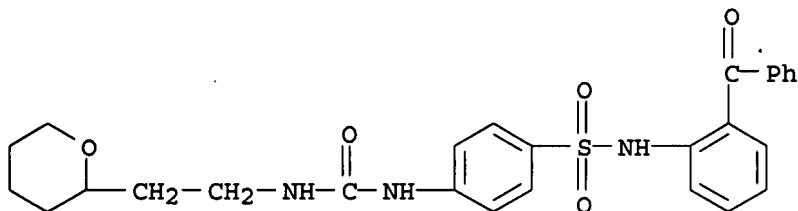


RN 827578-86-9 CAPLUS  
 CN Thiomorpholine, 4-[3-[[[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]amino]carbonyl]amino]-1-oxopropyl]-, 1,1-dioxide (9CI) (CA INDEX NAME)



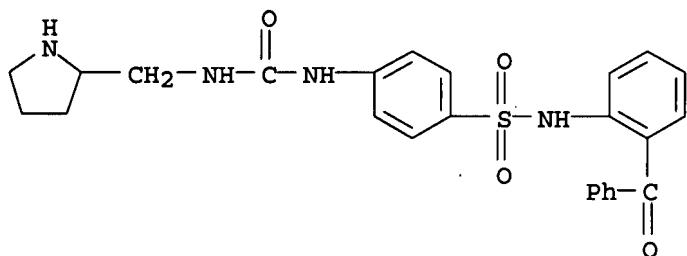
RN 827578-87-0 CAPLUS

CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[[2-(tetrahydro-2H-pyran-2-yl)ethyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



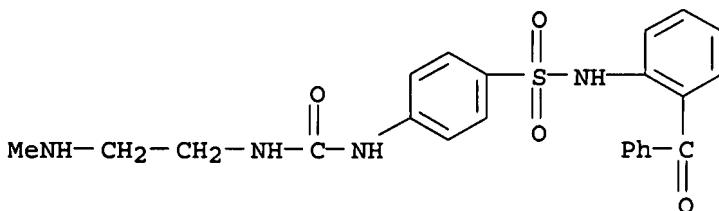
RN 827578-88-1 CAPLUS

CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(2-pyrrolidinylmethyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



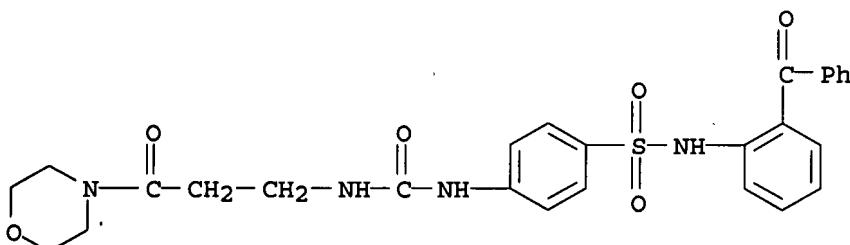
RN 827578-89-2 CAPLUS

CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(2-(methylamino)ethyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



RN 827578-90-5 CAPLUS

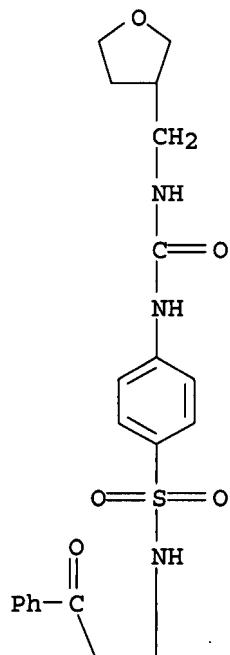
CN Morpholine, 4-[3-[[[[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]amino]carbonyl]amino]-1-oxopropyl]- (9CI) (CA INDEX NAME)



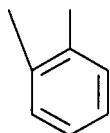
RN 827578-91-6 CAPLUS

CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(tetrahydro-3-furanyl)methyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-A

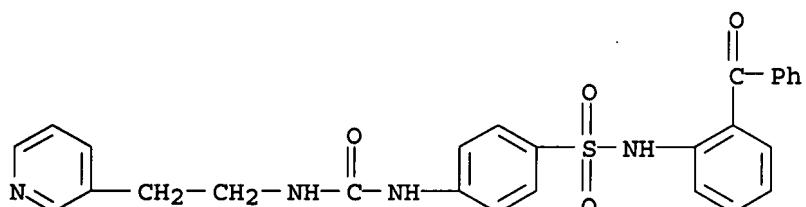


PAGE 2-A



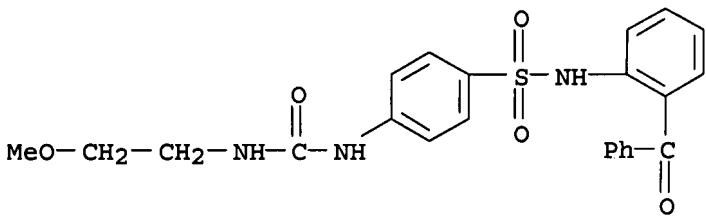
RN 827578-92-7 CAPLUS

CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[[2-(3-pyridinyl)ethyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)

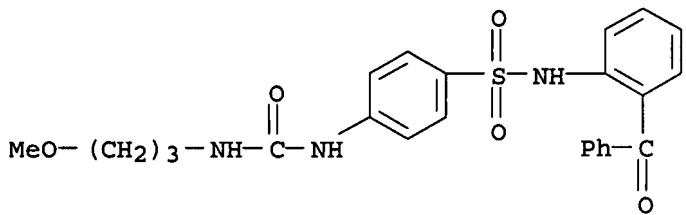


RN 827578-93-8 CAPLUS

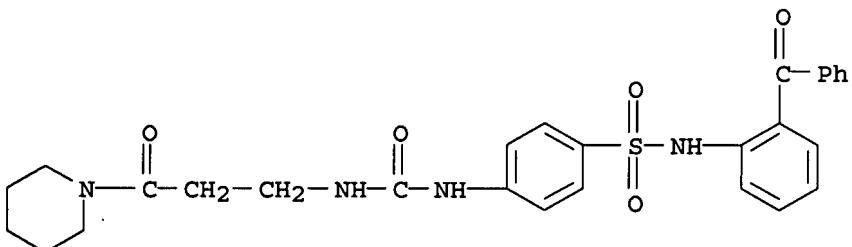
CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(2-methoxyethyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



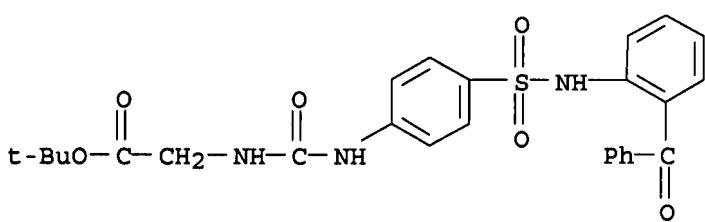
RN 827578-94-9 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(3-methoxypropyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



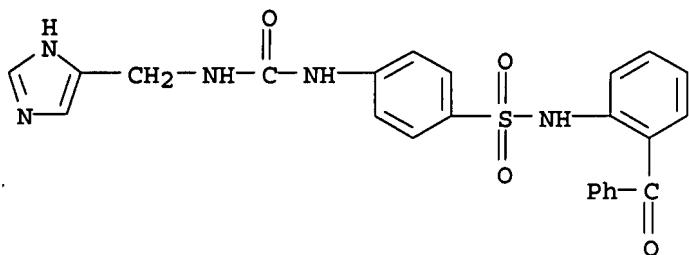
RN 827578-95-0 CAPLUS  
 CN Piperidine, 1-[3-[[[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]amino]carbonyl]amino]-1-oxopropyl- (9CI) (CA INDEX NAME)



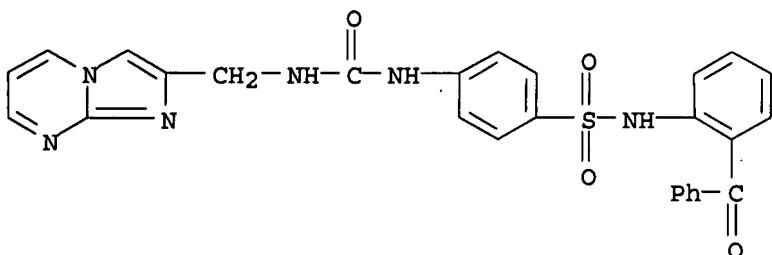
RN 827578-96-1 CAPLUS  
 CN Glycine, N-[[[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]amino]carbonyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



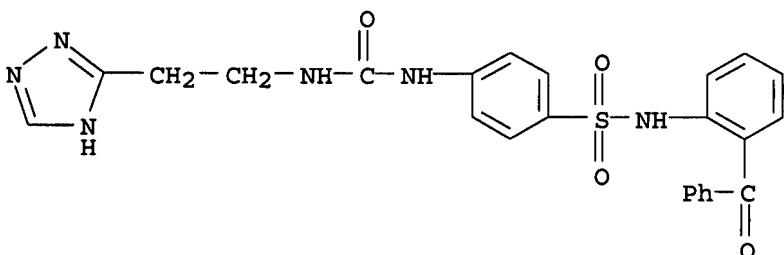
RN 827578-97-2 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(1H-imidazol-4-ylmethyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



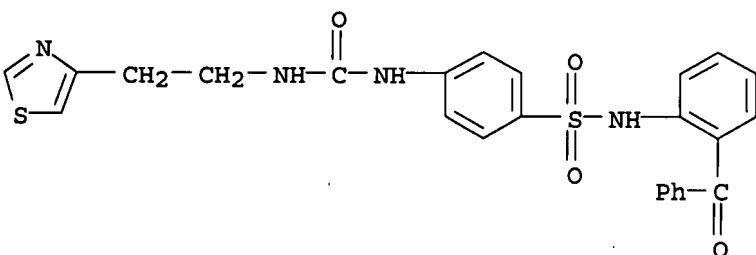
RN 827578-98-3 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(imidazo[1,2-a]pyrimidin-2-ylmethyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



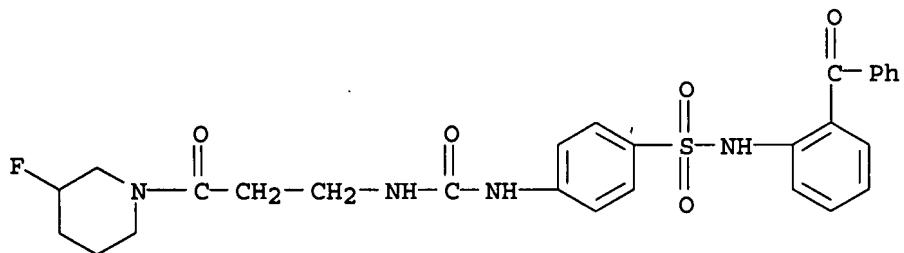
RN 827578-99-4 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[[2-(1H-1,2,4-triazol-3-yl)ethyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



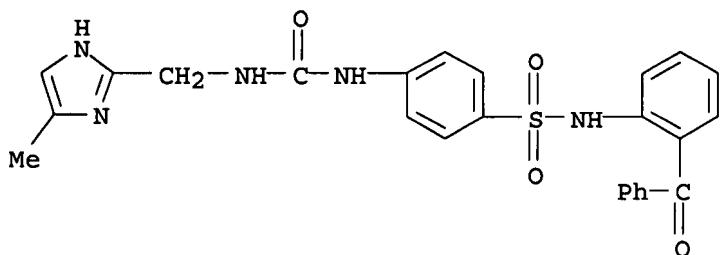
RN 827579-00-0 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[[2-(4-thiazolyl)ethyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



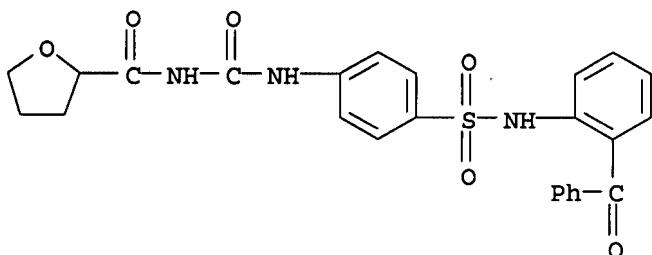
RN 827579-01-1 CAPLUS  
 CN Piperidine, 1-[3-[[[[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]amino]carbonyl]amino]-1-oxopropyl-3-fluoro- (9CI) (CA INDEX NAME)



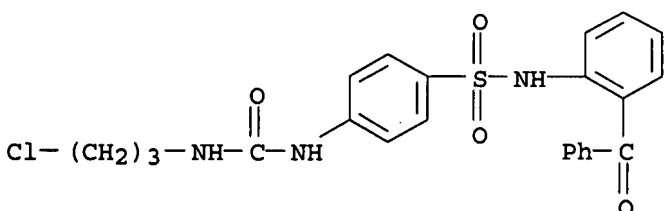
RN 827579-02-2 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[[4-methyl-1H-imidazol-2-yl)methyl]amino]carbonyl]amino] - (9CI) (CA INDEX NAME)



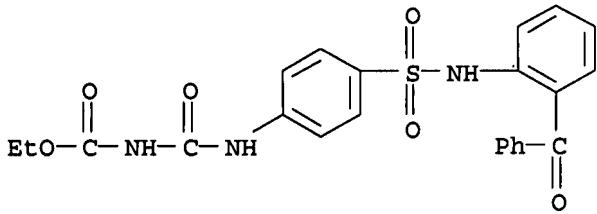
RN 827579-03-3 CAPLUS  
 CN 2-Furancarboxamide, N-[[[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]amino]carbonyl]tetrahydro- (9CI) (CA INDEX NAME)



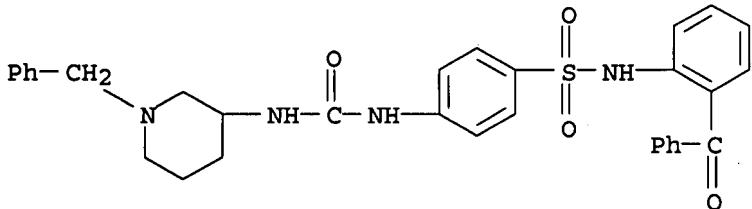
RN 827579-04-4 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(3-chloropropyl)amino]carbonyl]amino] - (9CI) (CA INDEX NAME)



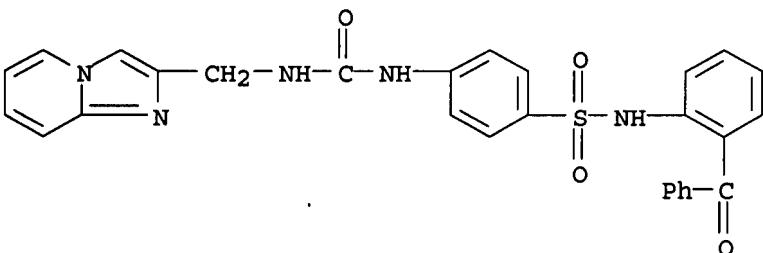
RN 827579-05-5 CAPLUS  
 CN Carbamic acid, [[[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



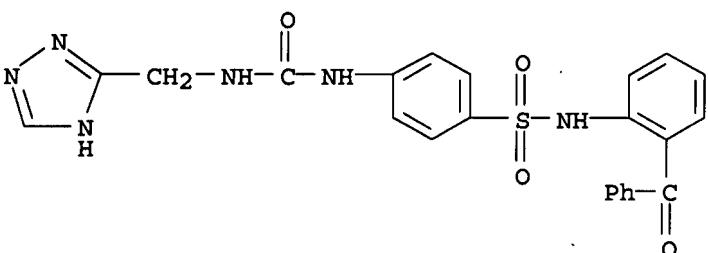
RN 827579-06-6 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[[1-(phenylmethyl)-3-piperidinyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



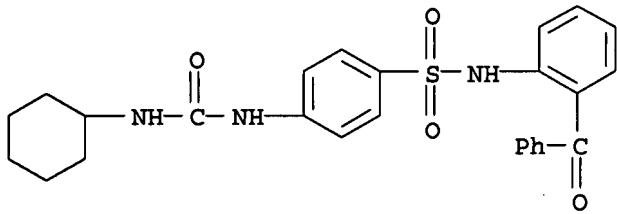
RN 827579-07-7 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(imidazo[1,2-a]pyridin-2-ylmethyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



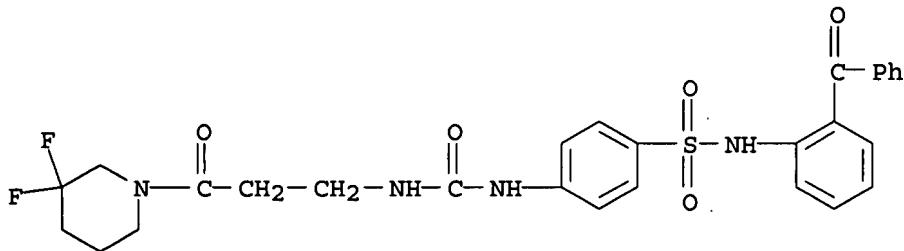
RN 827579-08-8 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(1H-1,2,4-triazol-3-ylmethyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



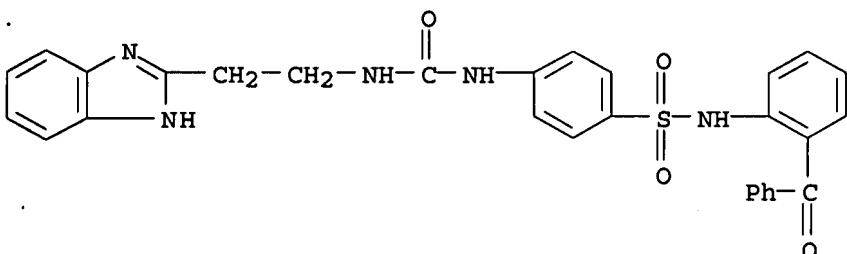
RN 827579-09-9 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(cyclohexylamino)carbonyl]amino]- (9CI) (CA INDEX NAME)



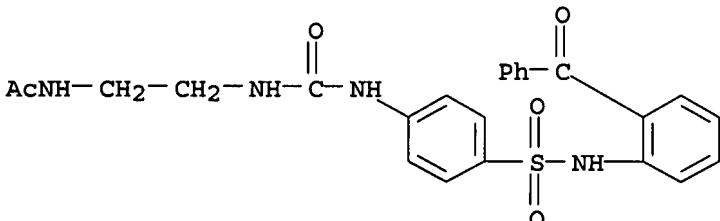
RN 827579-10-2 CAPLUS  
CN Piperidine, 1-[[3-[[[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]amino]carbonyl]amino]-1-oxopropyl-3,3-difluoro- (9CI) (CA INDEX NAME)



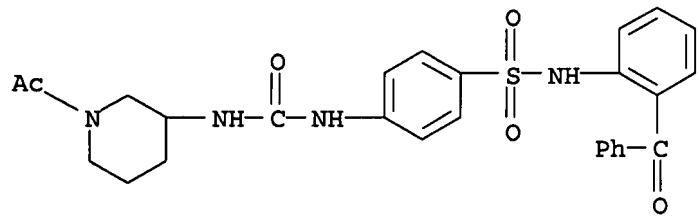
RN 827579-11-3 CAPLUS  
CN Benzenesulfonamide, 4-[[[2-(1H-benzimidazol-2-yl)ethyl]amino]carbonyl]amino]-N-(2-benzoylphenyl)- (9CI) (CA INDEX NAME)



RN 827579-12-4 CAPLUS  
CN Acetamide, N-[2-[[[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]amino]carbonyl]ethyl- (9CI) (CA INDEX NAME)



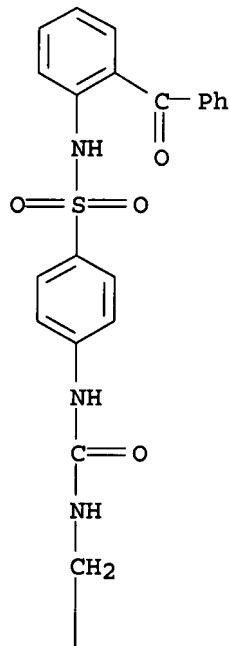
RN 827579-13-5 CAPLUS  
CN 3-Piperidinamine, 1-acetyl-N-[[[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]amino]carbonyl- (9CI) (CA INDEX NAME)



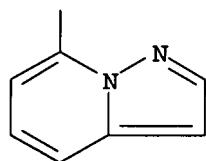
RN 827579-14-6 CAPLUS

CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(pyrazolo[1,5-a]pyridin-7-ylmethyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-A

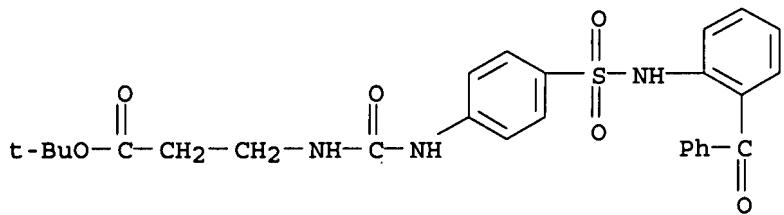


PAGE 2-A

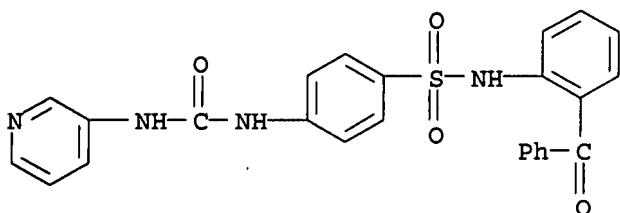


RN 827579-15-7 CAPLUS

CN  $\beta$ -Alanine, N-[[4-[[[(2-benzoylphenyl)amino]sulfonyl]phenyl]amino]carbonyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

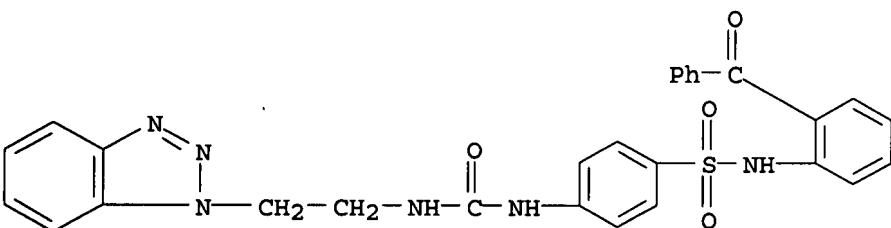


RN 827579-16-8 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[(3-pyridinylamino)carbonyl]amino]- (9CI) (CA INDEX NAME)

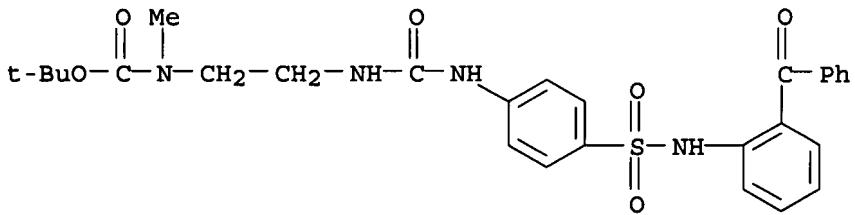


IT 827579-17-9P 827579-18-0P 827579-19-1P  
 827579-20-4P 827579-21-5P 827579-22-6P  
 827579-23-7P 827579-24-8P 827579-25-9P  
 827579-26-0P 827579-27-1P 827579-28-2P  
 827579-29-3P 827579-30-6P 827579-31-7P  
 827579-32-8P 827579-33-9P 827579-34-0P  
 827579-35-1P 827579-36-2P 828263-78-1P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of arylsulfonamides for treating pain and inflammation associated with the bradykinin B1 pathway)

RN 827579-17-9 CAPLUS  
 CN Benzenesulfonamide, 4-[[[2-(1H-benzotriazol-1-yl)ethyl]amino]carbonyl]amino]-N-(2-benzoylphenyl)- (9CI) (CA INDEX NAME)

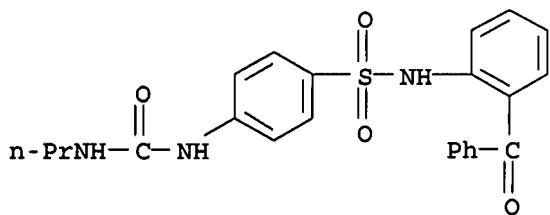


RN 827579-18-0 CAPLUS  
 CN Carbamic acid, [2-[[[[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]amino]carbonyl]amino]ethyl]methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



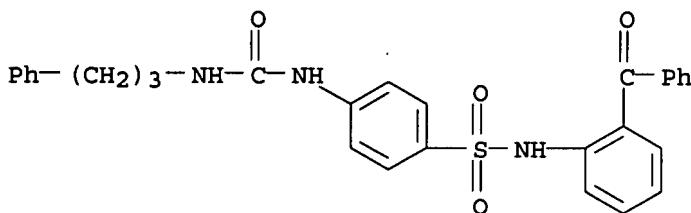
RN 827579-19-1 CAPLUS

CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[(propylamino)carbonyl]amino-  
(9CI) (CA INDEX NAME)



RN 827579-20-4 CAPLUS

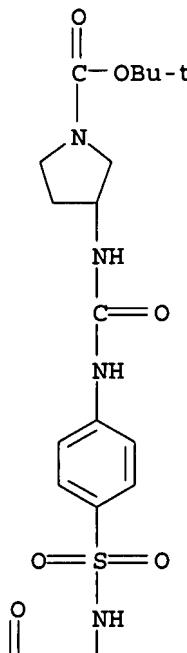
CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[(3-phenylpropylamino)carbonyl]amino-  
(9CI) (CA INDEX NAME)



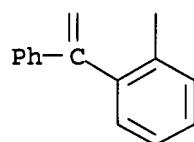
RN 827579-21-5 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 3-[[[[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]amino]carbonyl]amino-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

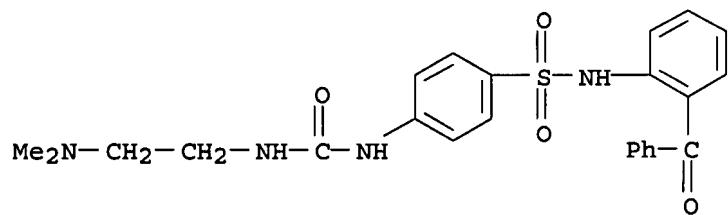


PAGE 2-A



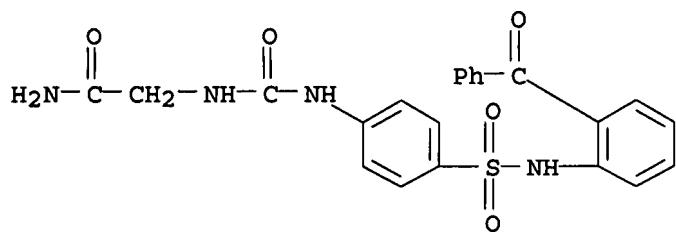
RN 827579-22-6 CAPLUS

CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[[2-(dimethylamino)ethyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)

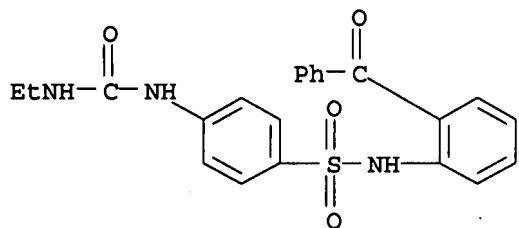


RN 827579-23-7 CAPLUS

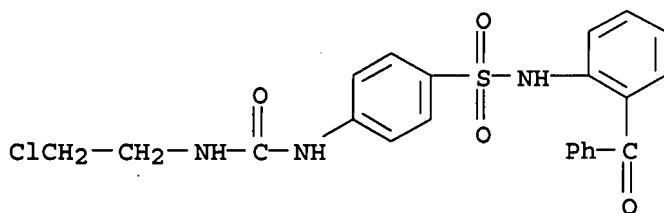
CN Acetamide, 2-[[[[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



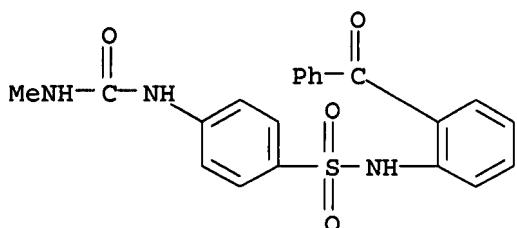
RN 827579-24-8 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[(ethylamino)carbonyl]amino- (9CI) (CA INDEX NAME)



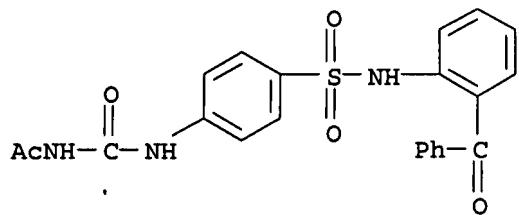
RN 827579-25-9 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(2-chloroethyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



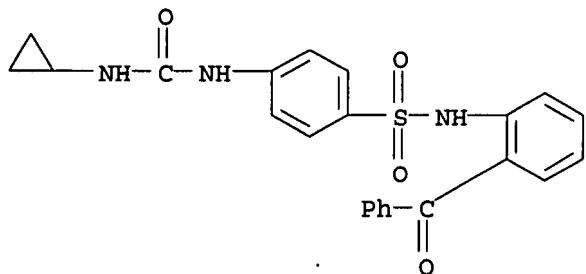
RN 827579-26-0 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[(methylamino)carbonyl]amino- (9CI) (CA INDEX NAME)



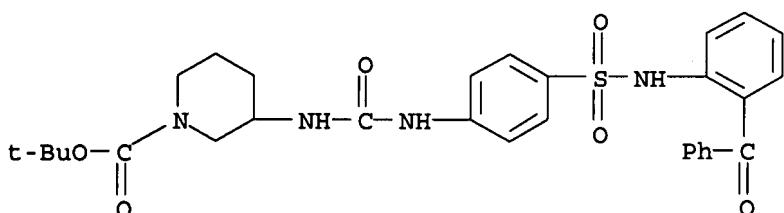
RN 827579-27-1 CAPLUS  
 CN Acetamide, N-[[[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]amino]carbonyl- (9CI) (CA INDEX NAME)



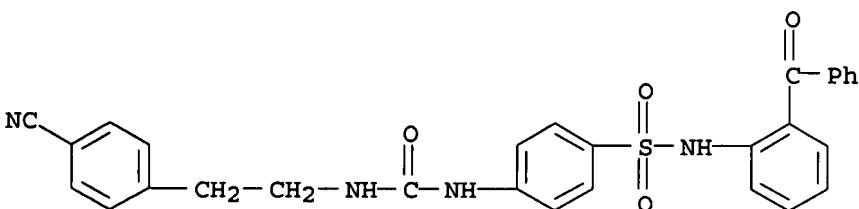
RN 827579-28-2 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[(cyclopropylamino)carbonyl]amino] - (9CI) (CA INDEX NAME)



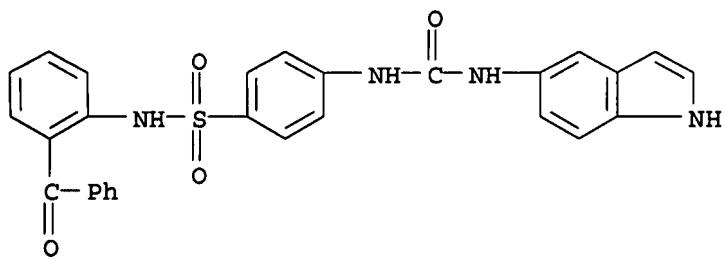
RN 827579-29-3 CAPLUS  
 CN 1-Piperidinecarboxylic acid, 3-[[[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl]amino]carbonyl]amino]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 827579-30-6 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[2-(4-cyanophenyl)ethyl]amino]carbonyl]amino] - (9CI) (CA INDEX NAME)

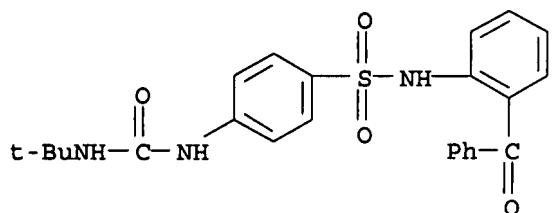


RN 827579-31-7 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[(1H-indol-5-ylamino)carbonyl]amino] - (9CI) (CA INDEX NAME)



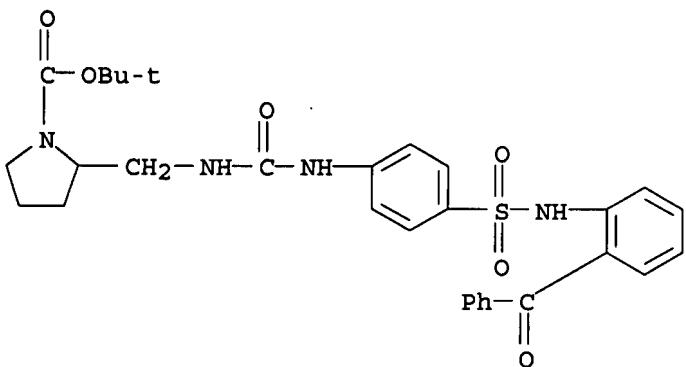
RN 827579-32-8 CAPLUS

CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(1,1-dimethylethyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)



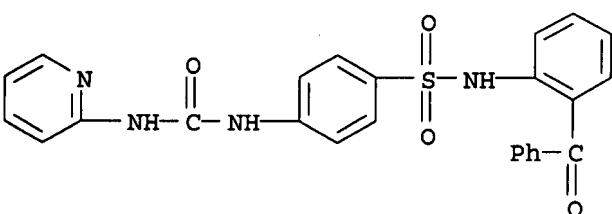
RN 827579-33-9 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-[[[[[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]amino]carbonyl]amino]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 827579-34-0 CAPLUS

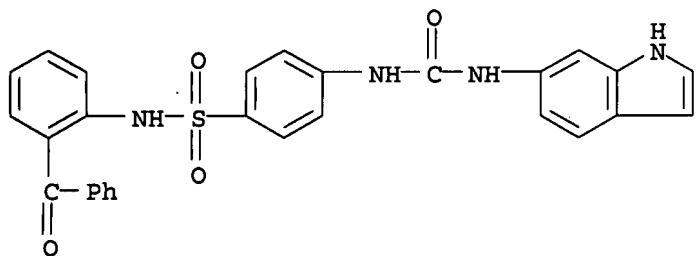
CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(2-pyridinylamino)carbonyl]amino]- (9CI) (CA INDEX NAME)



RN 827579-35-1 CAPLUS

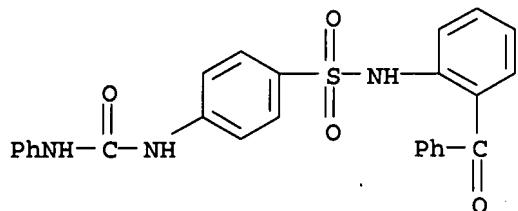
CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[[[(1H-indol-6-

ylamino)carbonyl]amino]- (9CI) (CA INDEX NAME)



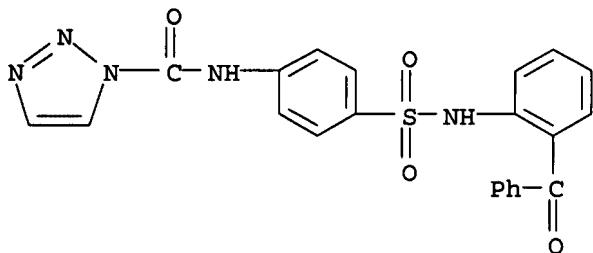
RN 827579-36-2 CAPLUS

CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-[(phenylamino)carbonyl]amino]- (9CI) (CA INDEX NAME)



RN 828263-78-1 CAPLUS

CN 1H-1,2,3-Triazole-1-carboxamide, N-[4-[(2-benzoylphenyl)amino]sulfonyl]phenyl- (9CI) (CA INDEX NAME)



IT 628301-24-6P, N-(2-Benzoylphenyl)-4-nitrobenzenesulfonamide

827579-37-3P, 4-Amino-N-(2-benzoylphenyl)benzenesulfonamide

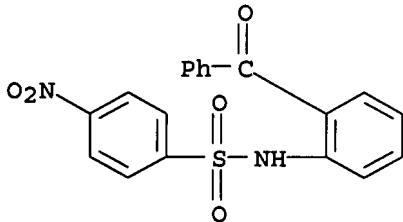
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of arylsulfonamides for treating pain and inflammation associated

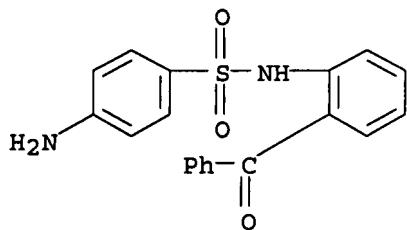
with the bradykinin B1 pathway)

RN 628301-24-6 CAPLUS

CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-nitro- (9CI) (CA INDEX NAME)



RN 827579-37-3 CAPLUS  
CN Benzenesulfonamide, 4-amino-N-(2-benzoylphenyl)- (9CI) (CA INDEX NAME)



L24 ANSWER 3 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:823190 CAPLUS

DN 141:332056

TI Preparation of 3-phenyl- and 3-pyridylpropenohydroxamic acid derivatives as new matrix metalloprotease (MMP-3) inhibitors

IN Hirata, Akikage; Nishimura, Hiroshi; Katayama, Kimiko; Tamura, Koichi; Amano, Hirotaka; Sugimoto, Kaori

PA Wakunaga Pharmaceutical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 60 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

|    | PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|----|---------------|------|----------|-----------------|----------|
| PI | JP 2004277311 | A    | 20041007 | JP 2003-69128   | 20030314 |
|    |               |      |          | JP 2003-69128   | 20030314 |

OS MARPAT 141:332056

AB Disclosed are matrix metalloprotease (MMP-3) inhibitors containing 3-phenyl- and 3-pyridylacrylohydroxamic acid derivs. (I) or salts thereof [wherein R1 = H, alkyl, halo; R2 = aryl, cycloalkylaryl, (un)substituted heteroaryl; R3 = H, halo; R4 = H, each (un)substituted alkyl or alkenyl; R5 = R6CO, R6SO2, R6NHCO, R6NHC(S); wherein R6 = cycloalkyl, cyclic amino, each (un)substituted alkyl, aryl, or heteroaryl; R7 = H, protecting group; A = CH, N, N(:O)] as active ingredients. These compds. are useful for the prevention and/or treatment of chronic rheumatoid arthritis, osteoarthritis (arthrosis deformans), jaw arthritis, slipped disk, venous ulcer, diabetic ulcer, bedsore, ulcerative colitis, Crohn's disease, duodenum ulcer, dystrophic blister, herpes dermatitis, yellow ligament calcareous deposition, cancer, heart attack, and stroke. Thus, 270 mg (E/Z)-3-[3-[N-(4-methoxybenzenesulfonyl)-N-isopropylamino]phenyl]-3-(N-oxidopyridin-3-yl)propenoic acid Et ester (preparation given) was dissolved 3 mL dioxane, treated with 2 mL 5% aqueous NaOH solution, stirred at room temperature for

1 h 40 min, distilled under reduced pressure to remove dioxane, diluted with H2O, adjusted to pH 5-6 with 5% aqueous HCl solution, and extracted with EtOAc to

give, after workup, an oil (0.19 g). The oil was dissolved in 1.5 mL DMF, successively treated with 1-hydroxybenzotriazole 76, 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride 114, N-methylmorpholine 50, and O-(tert-butyldimethylsilyl)hydroxylamine 123 mg and stirred for 22 h, treated with 5 mL, and extracted with CHCl3/THF (4:1) to give, after workup and silica gel chromatog., (E)-3-[3-[N-(4-methoxybenzenesulfonyl)-N-isopropylamino]phenyl]-3-(N-oxidopyridin-3-yl)propenoic acid. (E)-3-[3-[N-(4-methoxybenzenesulfonyl)-N-isopropylamino]phenyl]-3-(2-pyridyl)propenohydroxamic acid showed IC50 of  $\mu$ g/mL against 0.030  $\mu$ M against MMP-3.

IT 121779-69-9P

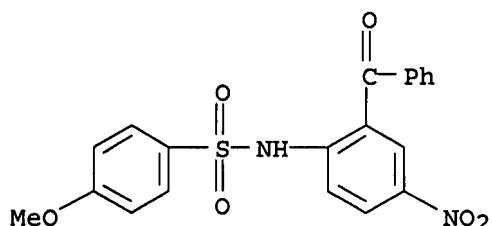
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(preparation of 3-phenyl- and 3-pyridylpropenoxyhydroxamic acid derivs. as new matrix metalloprotease (MMP-3) inhibitors as preventives or remedies for diseases)

RN 121779-69-9 CAPLUS

CN Benzenesulfonamide, N-(2-benzoyl-4-nitrophenyl)-4-methoxy- (9CI) (CA INDEX NAME)



L24 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:950984 CAPLUS

DN 140:5067

TI Preparation of N-heteroaryl- and N-arylbenzenesulfonamide and -heterocyclesulfonamides as chemokine CCR9 inhibitors as antiinflammatory agents

IN Fleming, Paul; Harriman, Geraldine C. B.; Shi, Zhan; Chen, Shaowu

PA Millennium Pharmaceuticals, Inc., USA

SO PCT Int. Appl., 110 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|----|---|------|----------|-----------------|------------|
| PI | WO 2003099773   | A1   | 20031204 | WO 2003-US16090 | 20030521   |
|    | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW<br>RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG |      |          | US 2002-383573P | P 20020524 |
| CA | 2485681   | A1   | 20031204 | CA 2003-2485681 | 20030521   |
|    |   |      |          | US 2002-383573P | P 20020524 |
|    |   |      |          | WO 2003-US16090 | W 20030521 |
| AU | 2003248549  | A1   | 20031212 | AU 2003-248549  | 20030521   |
|    |   |      |          | US 2002-383573P | P 20020524 |
|    |   |      |          | WO 2003-US16090 | W 20030521 |
| US | 2004038976  | A1   | 20040226 | US 2003-443155  | 20030521   |
|    |   |      |          | US 2002-383573P | P 20020524 |
| EP | 1507756   | A1   | 20050223 | EP 2003-755422  | 20030521   |
|    | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK   |      |          | US 2002-383573P | P 20020524 |
|    |   |      |          | WO 2003-US16090 | W 20030521 |
| JP | 2005526857  | T    | 20050908 | JP 2004-507431  | 20030521   |
|    |   |      |          | US 2002-383573P | P 20020524 |
|    |   |      |          | WO 2003-US16090 | W 20030521 |
| ZA | 2004009131  | A    | 20050712 | ZA 2004-9131    | 20041111   |

|               |    |          |  |   |
|---------------|----|----------|--|---|
| US 2006167251 | A1 | 20060727 | US 2002-383573P<br>US 2006-391633<br>US 2002-383573P<br>US 2003-443155 | P 20020524<br>20060328<br>P 20020524<br>A3 20030521 |
| JP 2006265259 | A  | 20061005 | JP 2006-124437<br>US 2002-383573P<br>JP 2004-507431                    | 20060427<br>P 20020524<br>A3 20030521               |
| US 2007066823 | A1 | 20070322 | US 2006-601025<br>US 2002-383573P<br>US 2003-443155                    | 20061117<br>P 20020524<br>A1 20030521               |

OS MARPAT 140:5067

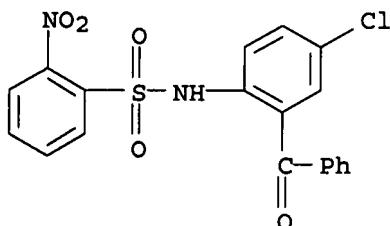
AB The title compds. [I; Y is C(O), O, S, S(O), or S(O)2; X1, X2, and X3 are each, independently, N or CR, provided that at least one of X1, X2, or X3 is CR; R for each occurrence and R1 are each, independently, H or a substituent; R6 is H, an aliphatic carbonyl group, or an aliphatic ester; ring A is substituted or unsubstituted; and Ar1 and Ar2 are each, independently, an (un)substituted aryl or heteroaryl] or pharmaceutically acceptable salts, solvates or hydrates thereof are prepared. These compds. I can bind to CCR9 receptors and block the binding of a ligand (e.g., TECK) to the receptors. The invention also relates to a method of inhibiting a function of CCR9, in particular treating or preventing an inflammatory disease or condition and to the use the compds. I in research, therapeutic, prophylactic, and diagnostic methods. CCR9 and its associated chemokine TECK, have been implicated in chronic inflammatory diseases, such as inflammatory bowel diseases. Small mol. inhibitors of the interaction between CCR9 and its ligands (e.g., TECK), such as the compds. I, are useful for inhibiting harmful inflammatory processes triggered by receptor-ligand interactions and thus are useful for treating diseases mediated by CCR9, such as chronic inflammatory diseases. For example, 14 compds. including N-(2-benzoyl-4-bromophenyl)-4-methoxybenzenesulfonamide, 5-(oxazol-5-yl)thiophene-2-sulfonic acid (2-benzoyl-4-chlorophenyl)amine inhibited the binding of human TECK to human CCR9 receptors with IC<sub>50</sub> value less than or equal to .apprx.1.0 μM.

IT 20594-91-6P 121779-69-9P 140916-44-5P  
314054-02-9P 314054-05-2P 392305-40-7P  
628300-37-8P 628300-42-5P 628300-47-0P  
628300-73-2P 628300-93-6P 628300-94-7P  
628300-99-2P 628301-03-1P 628301-07-5P  
628301-21-3P 628301-24-6P 628301-38-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

RN 20594-91-6 CAPLUS

CN Benzenesulfonamide, N-(2-benzoyl-4-chlorophenyl)-2-nitro- (9CI) (CA INDEX NAME)



RN 121779-69-9 CAPLUS

CN Benzenesulfonamide, N-(2-benzoyl-4-nitrophenyl)-4-methoxy- (9CI) (CA INDEX NAME)

11/391633  
Classification: 544/224.000  
Status: 71 - RESPONSE TO NON-FINAL OFFICE ACTION ENTERED AND FORWARDED TO EXAMINER  
Title: CCR9 INHIBITORS AND METHODS OF USE THEREOF

Examiner: BALASUBRAMANIAN, BALASUB  
Inventor: FLEMING , PAUL, et al  
Title: CCR9 INHIBITORS AND METHODS OF USE THEREOF

GAU: 1624

Continuity/Foreign Data report

**Patent Number:** Not Issued      **Issue Date:** N/A  
**Title:** CCR9 INHIBITORS AND METHODS OF USE THEREOF

No foreign data for this application.

**Parent Data**

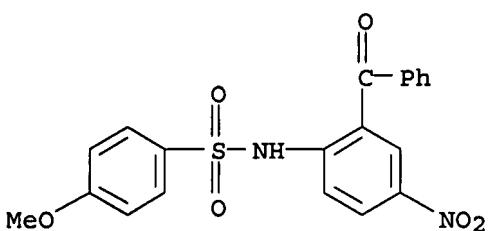
11/391633 (in phx)  


is a division of

10/443155 (in phx)  

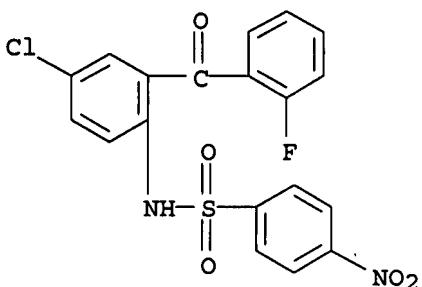

Claims Priority from Provisional Application

No child data for this application.



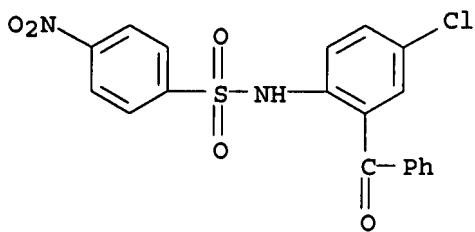
RN 140916-44-5 CAPLUS

CN Benzenesulfonamide, N-[4-chloro-2-(2-fluorobenzoyl)phenyl]-4-nitro- (9CI)  
(CA INDEX NAME)



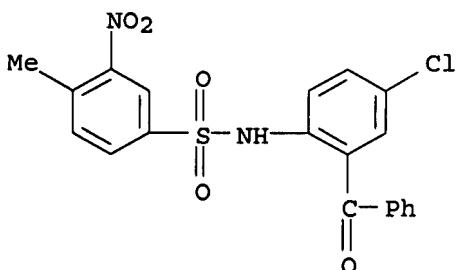
RN 314054-02-9 CAPLUS

CN Benzenesulfonamide, N-(2-benzoyl-4-chlorophenyl)-4-nitro- (9CI) (CA INDEX NAME)



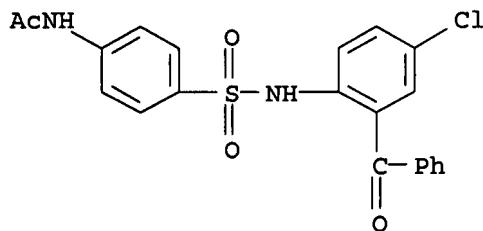
RN 314054-05-2 CAPLUS

CN Benzenesulfonamide, N-(2-benzoyl-4-chlorophenyl)-4-methyl-3-nitro- (9CI)  
(CA INDEX NAME)



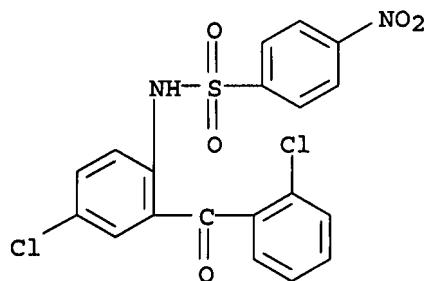
RN 392305-40-7 CAPLUS

CN Acetamide, N-[4-[(2-benzoyl-4-chlorophenyl)amino]sulfonyl]phenyl- (9CI)  
(CA INDEX NAME)



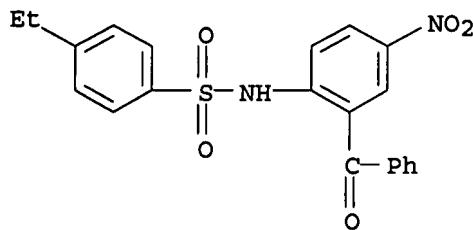
RN 628300-37-8 CAPLUS

CN Benzenesulfonamide, N-[4-chloro-2-(2-chlorobenzoyl)phenyl]-4-nitro- (9CI)  
(CA INDEX NAME)



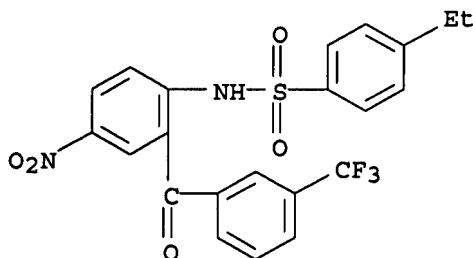
RN 628300-42-5 CAPLUS

CN Benzenesulfonamide, N-(2-benzoyl-4-nitrophenyl)-4-ethyl- (9CI) (CA INDEX NAME)



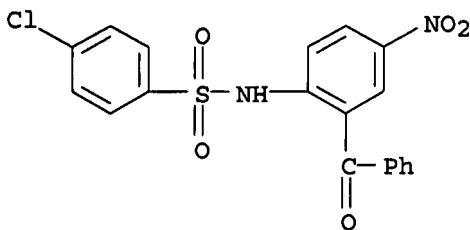
RN 628300-47-0 CAPLUS

CN Benzenesulfonamide, 4-ethyl-N-[4-nitro-2-[3-(trifluoromethyl)benzoyl]phenyl]- (9CI) (CA INDEX NAME)



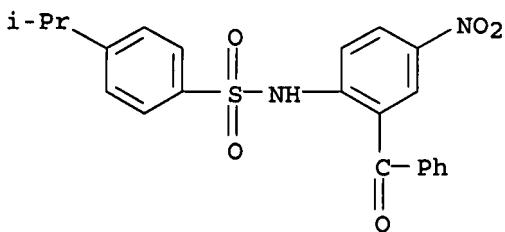
RN 628300-73-2 CAPLUS

CN Benzenesulfonamide, N-(2-benzoyl-4-nitrophenyl)-4-chloro- (9CI) (CA INDEX NAME)



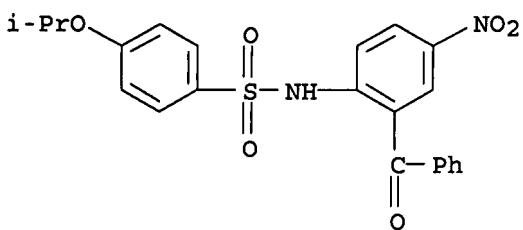
RN 628300-93-6 CAPLUS

CN Benzenesulfonamide, N-(2-benzoyl-4-nitrophenyl)-4-(1-methylethyl)- (9CI)  
(CA INDEX NAME)



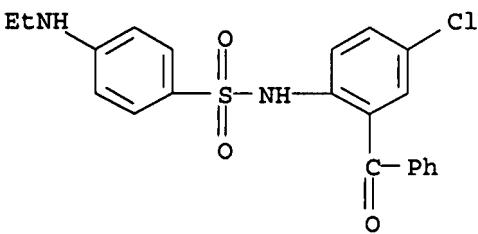
RN 628300-94-7 CAPLUS

CN Benzenesulfonamide, N-(2-benzoyl-4-nitrophenyl)-4-(1-methylethoxy)- (9CI)  
(CA INDEX NAME)



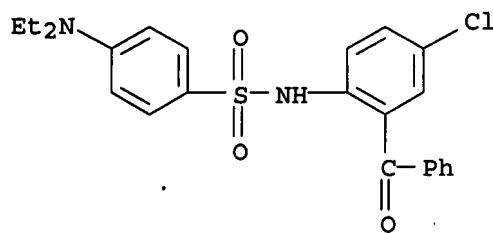
RN 628300-99-2 CAPLUS

CN Benzenesulfonamide, N-(2-benzoyl-4-chlorophenyl)-4-(ethylamino)- (9CI)  
(CA INDEX NAME)

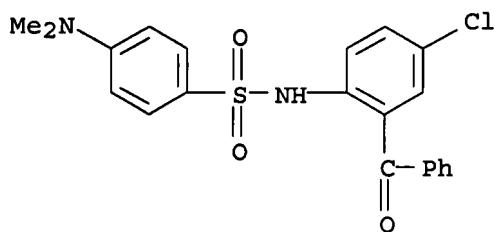


RN 628301-03-1 CAPLUS

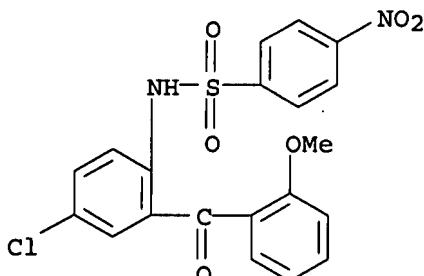
CN Benzenesulfonamide, N-(2-benzoyl-4-chlorophenyl)-4-(diethylamino)- (9CI)  
(CA INDEX NAME)



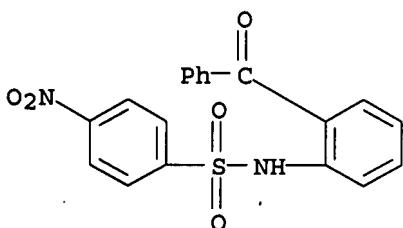
RN 628301-07-5 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoyl-4-chlorophenyl)-4-(dimethylamino)- (9CI)  
 (CA INDEX NAME)



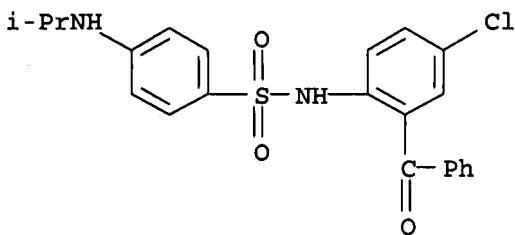
RN 628301-21-3 CAPLUS  
 CN Benzenesulfonamide, N-[4-chloro-2-(2-methoxybenzoyl)phenyl]-4-nitro- (9CI)  
 (CA INDEX NAME)



RN 628301-24-6 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoylphenyl)-4-nitro- (9CI) (CA INDEX NAME)

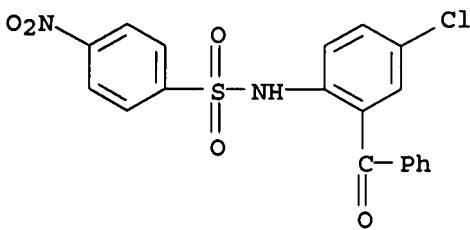


RN 628301-38-2 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoyl-4-chlorophenyl)-4-[(1-methylethyl)amino]- (9CI) (CA INDEX NAME)



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2003:533368 CAPLUS  
 DN 139:230297  
 TI 1H, 13C and 15N NMR spectral and X-ray structural studies of 2-arylsulfonylamino-5-chlorobenzophenones  
 AU Kolehmainen, E.; Nissinen, M.; Janota, H.; Gawinecki, R.; Osmialowski, B.  
 CS Department of Chemistry, University of Jyvaeskylae, Jyvaeskylae,  
 FIN-40014, Finland  
 SO Polish Journal of Chemistry (2003), 77(7), 889-894  
 CODEN: PJCHDQ; ISSN: 0137-5083  
 PB Polish Chemical Society  
 DT Journal  
 LA English  
 AB Six 2-(4-R-phenylsulfonylamino)-5-chlorobenzophenones were prepared and their 1H, 13C and 15N NMR spectra recorded and assigned. The dependence between the chemical shift of the amide proton and Hammett  $\sigma$  substituent consts. is of the V type. Substituent effect on the chemical shift of the amide nitrogen atom was found insignificant. X-ray anal. shows that the terminal benzene rings in 2-(4-nitrophenylsulfonylamino)-5-chlorobenzophenone are located close to each other. They are not, however, parallel, dihedral angle between them being equal to 10.86 deg (MP2/6-31G\*\*//HF/6-31G\*\* ab initio calcns. show this to be 20.44 deg). This shows that the mutual orientation of two benzene rings in the mol. of this compound is caused by the  $\pi$ - $\pi$  stacking. It is addnl. reinforced by the intramol. NH...O:C hydrogen bond. Except the dihedral angle between the benzene rings, X-ray determined structure of 2-(4-nitrophenylsulfonylamino)-5-chlorobenzophenone is very similar to this optimized by the ab initio calcns.  
 IT 314054-02-9  
 RL: PRP (Properties)  
 (crystal structure; proton, carbon-13, and nitrogen-15 NMR and crystallog. study of 2-arylsulfonylamino-5-chlorobenzophenones)  
 RN 314054-02-9 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoyl-4-chlorophenyl)-4-nitro- (9CI) (CA INDEX NAME)



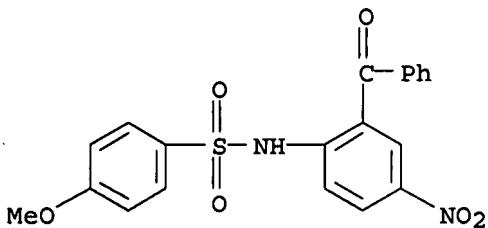
RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:171844 CAPLUS  
 DN 136:232200  
 TI Preparation of propenohydroxamic acid derivatives as TACE inhibitors for treatment of sepsis, infectious and autoimmune diseases, etc.  
 IN Hirata, Terukage; Misumi, Keiji; Ito, Kenji; Inokuma, Kenichi; Katayama, Kimiko  
 PA Wakunaga Pharmaceutical Co., Ltd., Japan  
 SO PCT Int. Appl., 70 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|----|---|------|----------|-----------------|------------|
| PI | WO 2002018326   | A1   | 20020307 | WO 2001-JP7292  | 20010827   |
|    | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM<br>RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG |      |          |                 |            |
| AU | 2001080167  | A5   | 20020313 | JP 2000-263094  | A 20000831 |
|    |   |      |          | AU 2001-80167   | 20010827   |
|    |   |      |          | JP 2000-263094  | A 20000831 |
|    |   |      |          | WO 2001-JP7292  | W 20010827 |
| CA | 2423733   | A1   | 20030214 | CA 2001-2423733 | 20010827   |
|    |   |      |          | JP 2000-263094  | A 20000831 |
|    |   |      |          | WO 2001-JP7292  | W 20010827 |
| EP | 1314721   | A1   | 20030528 | EP 2001-958495  | 20010827   |
|    | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |      |          | JP 2000-263094  | A 20000831 |
|    |   |      |          | WO 2001-JP7292  | W 20010827 |
| US | 2004029928  | A1   | 20040212 | US 2003-344898  | 20030226   |
|    |   |      |          | JP 2000-263094  | A 20000831 |
|    |   |      |          | WO 2001-JP7292  | W 20010827 |

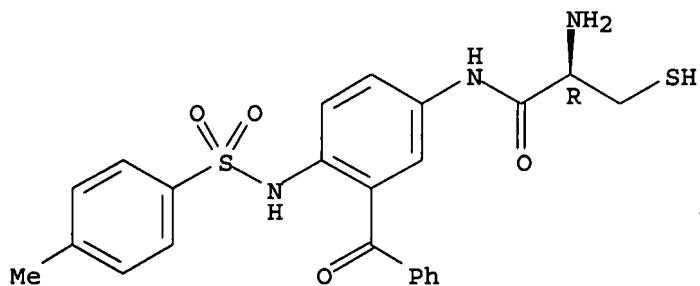
OS MARPAT 136:232200  
 AB The title compds. I [R1 represents hydrogen, alkyl or halogeno; R2 represents cycloalkyl, aryl, heteroaryl, etc.; R3 represents hydrogen, alkenyl, etc.; R4 represents H, (un)substituted alkyl, etc.; R5 represents R<sub>6</sub>CO, R<sub>6</sub>SO<sub>2</sub>, R<sub>6</sub>NHCO or R<sub>6</sub>NHCS (wherein R<sub>6</sub> represents alkyl, cycloalkyl, cyclic amino, aryl, heteroaryl, etc.); R7 represents hydrogen or a protective group; and A represents CH, nitrogen, etc.] are prepared I are useful as drugs for preventing and/or treating diseases such as sepsis, rheumatoid arthritis, infectious diseases, autoimmune diseases, malignant neoplasm, collagen disease, etc. E-3-[3-[N-(4-methoxybenzenesulfonyl)-N-methylaminophenyl]-3-(3-pyridyl)]propenohydroxamic acid (II) in vitro showed IC<sub>50</sub> of 7 nM against TACE. II in vitro showed IC<sub>50</sub> of > 10000 nM against MMP-1.  
 IT 121779-69-9P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
     (preparation of propenohydroxamic acid derivs. as TACE inhibitors for treatment of sepsis and infectious and autoimmune diseases)  
 RN 121779-69-9 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoyl-4-nitrophenyl)-4-methoxy- (9CI) (CA INDEX NAME)



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2001:567847 CAPLUS  
 DN 135:304135  
 TI Synthesis, Molecular Modeling, and Structure-Activity Relationship of Benzophenone-Based CAAAX-Peptidomimetic Farnesyltransferase Inhibitors  
 AU Sakowski, Jacek; Boehm, Markus; Sattler, Isabel; Dahse, Hans-Martin; Schlitzer, Martin .  
 CS Institut fuer Pharmazeutische Chemie, Philipps-Universitaet Marburg, Marburg, D-35032, Germany  
 SO Journal of Medicinal Chemistry (2001), 44(18), 2886-2899  
 CODEN: JMCMAR; ISSN: 0022-2623  
 PB American Chemical Society  
 DT Journal  
 LA English  
 OS CASREACT 135:304135  
 AB Because of the involvement of farnesylated proteins in oncogenesis, inhibition of the protein-modifying enzyme farnesyltransferase is considered a major emerging strategy in cancer therapy. Here, the authors describe the structure-activity relationship of a novel class of CAAAX-peptidomimetic farnesyltransferase inhibitors based on the benzophenone scaffold. 4'-Me, 4'-chloro, 4'-bromo, and 4'-nitrophenylacetic acid as substituents at the 2-amino group of the benzophenone core structure yield farnesyltransferase inhibitors active in the nanomolar range. Using diphenylacetic acid in this position further improves activity. Benzophenone-based cysteinamide I, an example of the title compds., was synthesized. SEAL superimposition of I as an inhibitor to the enzyme-bound conformation of a CAAAX-peptide shows a markedly good resemblance of the mol. properties of the peptide. FlexX docking of I confirms the good fit of the mol. into the peptide binding site of farnesyltransferase. The novel benzophenone-based CAAAX-peptidomimetic substructure described here will be useful for the design of some novel types of farnesyltransferase inhibitors.  
 IT 366456-85-1P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (preparation, mol. modeling and structure-activity relationships of benzophenone-based CAAAX-peptidomimetics as inhibitors of farnesyltransferase)  
 RN 366456-85-1 CAPLUS  
 CN Propanamide, 2-amino-N-[3-benzoyl-4-[[[4-methylphenyl)sulfonyl]amino]phenyl]-3-mercaptop-, monohydrochloride, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

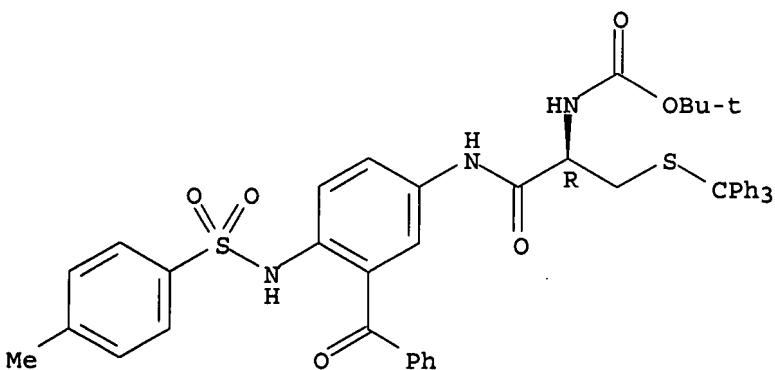
IT 366456-92-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation, mol. modeling and structure-activity relationships of benzophenone-based CAAAX-peptidomimetics as inhibitors of farnesyltransferase)

RN 366456-92-0 CAPLUS

CN Carbamic acid, [(1R)-2-[[3-benzoyl-4-[[[(4-methylphenyl)sulfonyl]amino]phenyl]amino]-2-oxo-1-[[[triphenylmethyl]thio]methyl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1995:811922 CAPLUS

DN 123:285437

TI Synthesis of substituted amides and their bioactivity

AU Wu, Jingping; Chen, Fuheng

CS Department of Applied Chemistry, Beijing Agricultural University, Beijing, 100094, Peop. Rep. China

SO Yingyong Huaxue (1995), 12(4), 80-3

CODEN: YIHUED; ISSN: 1000-0518

PB Yingyong Huaxue Bianji Weiyuanhui

DT Journal

LA Chinese

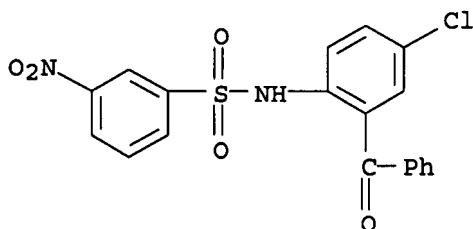
AB Thirty substituted amides e.g. 2,4-RC1C6H3NHXR1 (R = Bz, PhCHOH, R1 = substituted Ph; X = CO, SO2) have been synthesized from 5-chloro-2-aminobenzophenone. Most of the compds. showed an inhibition effect on rice growth.

IT 169263-22-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent) (synthesis of substituted amides and their plant growth regulator activity)

RN 169263-22-3 CAPLUS

CN Benzenesulfonamide, N-(2-benzoyl-4-chlorophenyl)-3-nitro- (9CI) (CA INDEX NAME)



L24 ANSWER 9 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1995:777639 CAPLUS

DN 123:198616

TI Preparation of N-sulfonylindoline derivatives with affinity for vasopressin and oxytocin receptors

IN Wagnon, Jean; de Cointet, Paul; Nisato, Dino; Plouzane, Claude; Sereadeil-Legal, Claudine; Tonnerre, Bernard

PA Elf Sanofi SA, Fr.

SO U.S., 50 pp. Cont.-in-part of U.S. Ser. No.737,655, abandoned.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 3

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE  |
|----|-------------|------|----------|--|---|
| PI | US 5338755  | A    | 19940816 | US 1992-923839<br>FR 1990-9778<br>US 1991-737655<br>FR 1991-9908 | 19920803<br>A 19900731<br>B2 19910730<br>A 19910802 |
|    | FR 2665441  | A1   | 19920207 | FR 1990-9778   | 19900731  |
|    | FR 2665441  | B1   | 19921204 |  |   |
|    | IL 114934   | A    | 19960804 | IL 1991-114934<br>FR 1990-9778<br>IL 1991-99012                  | 19910730<br>A 19900731<br>A3 19910730               |
|    | HU 219351   | B    | 20010328 | HU 1971-99045<br>FR 1990-9778<br>HU 1991-2552                    | 19910731<br>A 19900731<br>A 19910731                |
|    | FR 2679903  | A1   | 19930205 | FR 1991-9908   | 19910802  |
|    | FR 2679903  | B1   | 19931203 |  |   |
|    | AU 9224758  | A    | 19930302 | AU 1992-24758  | 19920731  |
|    | AU 658664   | B2   | 19950427 |  |   |
|    |             |      |          | FR 1991-9908<br>WO 1992-FR758                                    | A 19910802<br>A 19920731                            |
|    | BR 9205336  | A    | 19931116 | BR 1992-5336<br>FR 1991-9908<br>WO 1992-FR758                    | 19920731<br>A 19910802<br>A 19920731                |
|    | JP 06501960 | T    | 19940303 | JP 1993-503337<br>FR 1991-9908<br>WO 1992-FR758                  | 19920731<br>A 19910802<br>W 19920731                |
|    | RU 2104268  | C1   | 19980210 | RU 1993-5168<br>FR 1991-9908<br>WO 1992-FR758                    | 19920731<br>A 19910802<br>W 19920731                |
|    | IL 117592   | A    | 19990411 | IL 1992-117592   | 19920731  |

|            |    |          |                 |             |
|------------|----|----------|-----------------|-------------|
|            |    |          | FR 1991-9908    | A 19910802  |
|            |    |          | IL 1992-102703  | A3 19920731 |
| CZ 288173  | B6 | 20010516 | CZ 1993-682     | 19920731    |
|            |    |          | FR 1991-9908    | A 19910802  |
|            |    |          | CS 1993-682     | A 19920731  |
| CA 2206776 | C  | 20020226 | CA 1992-2206776 | 19920731    |
|            |    |          | FR 1991-9908    | A 19910802  |
|            |    |          | CA 1992-2093221 | A3 19920731 |
| SK 283463  | B6 | 20030805 | SK 1993-426     | 19920731    |
|            |    |          | FR 1991-9908    | A 19910802  |
|            |    |          | WO 1992-FR758   | W 19920731  |
| NO 9301262 | A  | 19930526 | NO 1993-1262    | 19930401    |
| NO 180047  | B  | 19961028 |                 |             |
| NO 180047  | C  | 19970205 |                 |             |
|            |    |          | FR 1991-9908    | A 19910802  |
|            |    |          | WO 1992-FR758   | W 19920731  |
| FI 104069  | B  | 19991115 | FI 1993-1476    | 19930401    |
| FI 104069  | B1 | 19991115 |                 |             |
|            |    |          | FR 1991-9908    | A 19910802  |
|            |    |          | WO 1992-FR758   | W 19920731  |
| US 5397801 | A  | 19950314 | US 1994-240360  | 19940510    |
|            |    |          | FR 1990-9778    | A 19900731  |
|            |    |          | US 1991-737655  | B2 19910730 |
|            |    |          | FR 1991-9908    | A 19910802  |
|            |    |          | US 1992-923839  | A3 19920803 |
| US 5481005 | A  | 19960102 | US 1994-348150  | 19941128    |
|            |    |          | FR 1990-9778    | A 19900731  |
|            |    |          | US 1991-737655  | B2 19910730 |
|            |    |          | FR 1991-9908    | A 19910802  |
|            |    |          | US 1993-923839  | A3 19930803 |
|            |    |          | US 1994-240360  | A3 19940510 |
| US 5578633 | A  | 19961126 | US 1995-458614  | 19950602    |
|            |    |          | FR 1990-9778    | A 19900731  |
|            |    |          | US 1991-737655  | B2 19910730 |
|            |    |          | FR 1991-9908    | A 19910802  |
|            |    |          | US 1992-923839  | A3 19920803 |
|            |    |          | US 1994-240360  | A3 19940510 |
|            |    |          | US 1994-348150  | A3 19941128 |
| FI 9800175 | A  | 19980127 | FI 1998-175     | 19980127    |
| FI 107048  | B1 | 20010531 |                 |             |
|            |    |          | FR 1991-9908    | A 19910802  |
|            |    |          | WO 1992-FR758   | W 19920731  |
|            |    |          | FI 1993-1476    | A 19930401  |

PATENT FAMILY INFORMATION:

FAN 1992:214341

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|----|---|------|----------|-----------------|------------|
| PI | EP 469984   | A2   | 19920205 | EP 1991-402123  | 19910730   |
|    | EP 469984   | A3   | 19920311 |                 |            |
|    | EP 469984   | B1   | 19951018 |                 |            |
|    | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE |      |          |                 |            |
|    |   |      |          | FR 1990-9778    | A 19900731 |
|    | FR 2665441  | A1   | 19920207 | FR 1990-9778    | 19900731   |
|    | FR 2665441  | B1   | 19921204 |                 |            |
|    | FI 9103614  | A    | 19920201 | FI 1991-3614    | 19910729   |
|    | FI 97224  | B    | 19960731 |                 |            |
|    | FI 97224  | C    | 19961111 |                 |            |
|    |   |      |          | FR 1990-9778    | A 19900731 |
|    | CA 2048139  | A1   | 19920201 | CA 1991-2048139 | 19910730   |
|    | CA 2048139  | C    | 20020212 |                 |            |
|    |   |      |          | FR 1990-9778    | A 19900731 |
|    | NO 9102970  | A    | 19920203 | NO 1991-2970    | 19910730   |
|    | NO 175254   | B    | 19940613 |                 |            |
|    | NO 175254   | C    | 19940921 |                 |            |

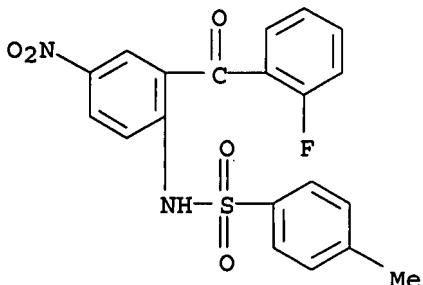
|   |       |          |  |   |
|---|-------|----------|--|---|
| AT 129236   | T     | 19951115 | FR 1990-9778<br>AT 1991-402123<br>FR 1990-9778<br>ES 1991-402123<br>FR 1990-9778<br>IL 1991-99012<br>FR 1990-9778<br>IL 1991-114934<br>FR 1990-9778<br>IL 1991-99012 | A 19900731<br>19910730<br>A 19900731<br>19910730<br>A 19900731<br>19910730<br>A 19900731<br>19910730<br>A3 19910730<br>19910731 |
| ES 2080922  | T3    | 19960216 | FR 1990-9778<br>ES 1991-402123<br>FR 1990-9778<br>IL 1991-99012<br>FR 1990-9778<br>IL 1991-114934<br>FR 1990-9778<br>IL 1991-99012                                   | A 19900731<br>19910730<br>A 19900731<br>19910730<br>A 19900731<br>19910730<br>A 19900731<br>19910730<br>A3 19910730<br>19910731 |
| IL 99012  | A     | 19960723 | FR 1990-9778<br>IL 1991-99012<br>FR 1990-9778<br>IL 1991-114934<br>FR 1990-9778<br>IL 1991-99012   | A 19900731<br>19910730<br>A 19900731<br>19910730<br>A 19900731<br>19910730<br>A 19900731<br>19910730<br>A3 19910730<br>19910731 |
| IL 114934   | A     | 19960804 | FR 1990-9778<br>IL 1991-114934<br>FR 1990-9778<br>IL 1991-99012  | A 19900731<br>19910730<br>A 19900731<br>19910730<br>A3 19910730<br>19910731   |
| AU 9181478  | A     | 19920206 | AU 1991-81478  | 19910731  |
| AU 645585   | B2    | 19940120 | FR 1990-9778   | A 19900731  |
| ZA 9106031  | A     | 19920429 | ZA 1991-6031<br>FR 1990-9778   | 19910731<br>A 19900731  |
| HU 59669  | A2    | 19920629 | HU 1991-2552   | 19910731  |
| HU 220765   | B1    | 20020528 | FR 1990-9778   | A 19900731  |
| JP 04234361   | A     | 19920824 | JP 1991-192078   | 19910731  |
| JP 3195381  | B2    | 20010806 | FR 1990-9778   | A 19900731  |
| KR 211434   | B1    | 19990802 | KR 1991-13249<br>FR 1990-9778  | 19910731<br>A 19900731  |
| HU 219351   | B     | 20010328 | HU 1971-99045<br>FR 1990-9778<br>HU 1991-2552  | 19910731<br>A 19900731<br>A 19910731  |
| AU 9350473  | A     | 19940113 | AU 1993-50473  | 19931105  |
| AU 664491   | B2    | 19951116 | FR 1990-9778   | A 19900731  |
| US 5481005  | A     | 19960102 | US 1994-348150<br>FR 1990-9778<br>US 1991-737655<br>FR 1991-9908<br>US 1993-923839<br>US 1994-240360   | 19941128<br>A 19900731<br>B2 19910730<br>A 19910802<br>A3 19930803<br>A3 19940510   |
| FAN 1993:539091   |       |          |  |   |
| PATENT NO.  | KIND  | DATE     | APPLICATION NO.  | DATE  |
| -----   | ----- | -----    | -----  | -----   |
| PI EP 526348  | A1    | 19930203 | EP 1992-402213   | 19920803  |
| EP 526348   | B1    | 19980218 |  |   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE |       |          |  |   |
| FR 2679903  | A1    | 19930205 | FR 1991-9908   | A 19910802  |
| FR 2679903  | B1    | 19931203 | FR 1991-9908   | 19910802  |
| CA 2093221  | A1    | 19930203 | CA 1992-2093221  | 19920731  |
| CA 2093221  | C     | 19980922 | FR 1991-9908   | A 19910802  |
| WO 9303013  | A1    | 19930218 | WO 1992-FR758  | 19920731  |
| W: AU, BR, CA, CS, FI, HU, JP, KR, NO, RU                         |       |          |  |   |
| FR 1991-9908  |       |          |  |   |
| AU 9224758  | A     | 19930302 | AU 1992-24758  | 19920731  |
| AU 658664   | B2    | 19950427 | FR 1991-9908<br>WO 1992-FR758  | A 19910802<br>A 19920731  |
| ZA 9205781  | A     | 19930302 | ZA 1992-5781<br>FR 1991-9908   | 19920731<br>A 19910802  |
| BR 9205336  | A     | 19931116 | BR 1992-5336<br>FR 1991-9908   | 19920731<br>A 19910802  |
| JP 06501960   | T     | 19940303 | WO 1992-FR758<br>JP 1993-503337  | A 19920731<br>A 19910802  |
| LT 3064   | B     | 19941025 | LT 1992-114<br>FR 1991-9908  | W 19920731<br>A 19910802  |

|            |    |          |                 |             |
|------------|----|----------|-----------------|-------------|
| LV 10091   | B  | 19950420 | LV 1992-87      | 19920731    |
| HU 68927   | A2 | 19950828 | FR 1991-9908    | A 19910802  |
| IL 102703  | A  | 19970318 | HU 1993-951     | 19920731    |
| JP 2633085 | B2 | 19970723 | FR 1991-9908    | A 19910802  |
| RU 2104268 | C1 | 19980210 | IL 1992-102703  | 19920731    |
|            |    |          | FR 1991-9908    | A 19910802  |
|            |    |          | JP 1992-503337  | 19920731    |
|            |    |          | FR 1991-9908    | A 19910802  |
|            |    |          | RU 1993-5168    | 19920731    |
|            |    |          | FR 1991-9908    | A 19910802  |
|            |    |          | WO 1992-FR758   | W 19920731  |
| IL 117592  | A  | 19990411 | IL 1992-117592  | 19920731    |
|            |    |          | FR 1991-9908    | A 19910802  |
|            |    |          | IL 1992-102703  | A3 19920731 |
| CZ 288173  | B6 | 20010516 | CZ 1993-682     | 19920731    |
|            |    |          | FR 1991-9908    | A 19910802  |
|            |    |          | CS 1993-682     | A 19920731  |
| CA 2206776 | C  | 20020226 | CA 1992-2206776 | 19920731    |
|            |    |          | FR 1991-9908    | A 19910802  |
|            |    |          | CA 1992-2093221 | A3 19920731 |
| SK 283463  | B6 | 20030805 | SK 1993-426     | 19920731    |
|            |    |          | FR 1991-9908    | A 19910802  |
|            |    |          | WO 1992-FR758   | W 19920731  |
| AT 163289  | T  | 19980315 | AT 1992-402213  | 19920803    |
|            |    |          | FR 1991-9908    | A 19910802  |
| ES 2117038 | T3 | 19980801 | ES 1992-402213  | 19920803    |
|            |    |          | FR 1991-9908    | A 19910802  |
| NO 9301262 | A  | 19930526 | NO 1993-1262    | 19930401    |
| NO 180047  | B  | 19961028 |                 |             |
| NO 180047  | C  | 19970205 |                 |             |
|            |    |          | FR 1991-9908    | A 19910802  |
|            |    |          | WO 1992-FR758   | W 19920731  |
| FI 104069  | B  | 19991115 | FI 1993-1476    | 19930401    |
| FI 104069  | B1 | 19991115 |                 |             |
|            |    |          | FR 1991-9908    | A 19910802  |
|            |    |          | WO 1992-FR758   | W 19920731  |
| US 5481005 | A  | 19960102 | US 1994-348150  | 19941128    |
|            |    |          | FR 1990-9778    | A 19900731  |
|            |    |          | US 1991-737655  | B2 19910730 |
|            |    |          | FR 1991-9908    | A 19910802  |
|            |    |          | US 1993-923839  | A3 19930803 |
|            |    |          | US 1994-240360  | A3 19940510 |
| AU 9511541 | A  | 19950504 | AU 1995-11541   | 19950203    |
| AU 691223  | B2 | 19980514 |                 |             |
|            |    |          | FR 1991-9908    | A 19910802  |
| HU 9500474 | A3 | 19951030 | HU 1995-474     | 19950628    |
|            |    |          | FR 1991-9908    | A 19910802  |
| FI 9800175 | A  | 19980127 | FI 1998-175     | 19980127    |
| FI 107048  | B1 | 20010531 |                 |             |
|            |    |          | FR 1991-9908    | A 19910802  |
|            |    |          | WO 1992-FR758   | W 19920731  |
|            |    |          | FI 1993-1476    | A 19930401  |

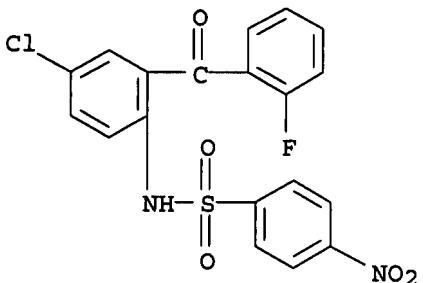
OS MARPAT 123:198616

AB Title compds. I (R'1 = halo, C1-4 alkyl, HO, C1-4 alkoxy, PhCH<sub>2</sub>O, NC, F3C, O<sub>2</sub>N, H<sub>2</sub>N; R'2 = C1-6 alkyl, C3-7 cycloalkyl, C5-7 cycloalkylene, (substituted) Ph, etc.; R'3 = H; R'4 = H<sub>2</sub>NCO, R'6R'7NCO wherein R'6R'7N = saturated 5-membered substituted N-heterocyclyl; R'5 = C1-4 alkyl, 1-, 2-naphthyl, (substituted) Ph, etc.; n = m = 0-2) or a salt thereof, are prepared CH<sub>2</sub>BrCONMe<sub>2</sub> (preparation given) and 5-chloro-2-(tosylamino)phenyl cyclohexyl ketone were reacted to give 2-[N-tosyl-N-(dimethylcarbamoylmethyl)amino]-5-(chlorophenyl) cyclohexyl ketone which in THF was treated with Li diisopropylamide to give after workup trans-I (R'1n = 5-Cl, R'2 = cyclohexyl, R'3 = H, R'4 = Me<sub>2</sub>NCO, R'5 = 4-MeC<sub>6</sub>H<sub>4</sub>, m = 0). The IC<sub>50</sub> of I affinity for oxytocin receptors was

10-5-10-8M.  
IT 94107-57-0P 140916-44-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of N-sulfonylindoline derivs. with affinity for vasopressin and oxytocin receptors)  
RN 94107-57-0 CAPLUS  
CN Benzenesulfonamide, N-[2-(2-fluorobenzoyl)-4-nitrophenyl]-4-methyl- (9CI)  
(CA INDEX NAME)



RN 140916-44-5 CAPLUS  
CN Benzenesulfonamide, N-[4-chloro-2-(2-fluorobenzoyl)phenyl]-4-nitro- (9CI)  
(CA INDEX NAME)



L24 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1992:214341 CAPLUS  
DN 116:214341  
TI Preparation of 1-arylsulfonyl-3-hydroxyindoline-2-carboxylates and analogs as vasopressin and oxytocin receptor ligands  
IN Wagnon, Jean; De Cointet, Paul; Nisato, Dino; Plouzane, Claude; Serradeil-Legal, Claudine  
PA Sanofi SA, Fr.  
SO Eur. Pat. Appl., 44 pp.  
CODEN: EPXXDW  
DT Patent  
LA French  
FAN.CNT 3

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|----|---|------|----------|-----------------|------------|
| PI | EP 469984   | A2   | 19920205 | EP 1991-402123  | 19910730   |
|    | EP 469984   | A3   | 19920311 |                 |            |
|    | EP 469984   | B1   | 19951018 |                 |            |
|    | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE |      |          | FR 1990-9778    | A 19900731 |
|    | FR 2665441  | A1   | 19920207 | FR 1990-9778    | 19900731   |
|    | FR 2665441  | B1   | 19921204 |                 |            |
|    | FI 9103614  | A    | 19920201 | FI 1991-3614    | 19910729   |

|             |    |          |                 |             |
|-------------|----|----------|-----------------|-------------|
| FI 97224    | B  | 19960731 |                 |             |
| FI 97224    | C  | 19961111 |                 |             |
| CA 2048139  | A1 | 19920201 | FR 1990-9778    | A 19900731  |
| CA 2048139  | C  | 20020212 | CA 1991-2048139 | 19910730    |
| NO 9102970  | A  | 19920203 | FR 1990-9778    | A 19900731  |
| NO 175254   | B  | 19940613 | NO 1991-2970    | 19910730    |
| NO 175254   | C  | 19940921 |                 |             |
| AT 129236   | T  | 19951115 | FR 1990-9778    | A 19900731  |
| ES 2080922  | T3 | 19960216 | AT 1991-402123  | 19910730    |
| IL 99012    | A  | 19960723 | FR 1990-9778    | A 19900731  |
| IL 114934   | A  | 19960804 | ES 1991-402123  | 19910730    |
| AU 9181478  | A  | 19920206 | FR 1990-9778    | A 19900731  |
| AU 645585   | B2 | 19940120 | IL 1991-99012   | 19910730    |
| ZA 9106031  | A  | 19920429 | FR 1990-9778    | A 19900731  |
| HU 59669    | A2 | 19920629 | ZA 1991-6031    | 19910731    |
| HU 220765   | B1 | 20020528 | FR 1990-9778    | A 19900731  |
| JP 04234361 | A  | 19920824 | HU 1991-2552    | 19910731    |
| JP 3195381  | B2 | 20010806 | FR 1990-9778    | A 19900731  |
| KR 211434   | B1 | 19990802 | JP 1991-192078  | 19910731    |
| HU 219351   | B  | 20010328 | FR 1990-9778    | A 19900731  |
| AU 9350473  | A  | 19940113 | HU 1971-99045   | 19910731    |
| AU 664491   | B2 | 19951116 | FR 1990-9778    | A 19900731  |
| US 5481005  | A  | 19960102 | HU 1991-2552    | 19910731    |
|             |    |          | AU 1993-50473   | 19931105    |
|             |    |          | FR 1990-9778    | A 19900731  |
|             |    |          | US 1994-348150  | 19941128    |
|             |    |          | FR 1990-9778    | A 19900731  |
|             |    |          | US 1991-737655  | B2 19910730 |
|             |    |          | FR 1991-9908    | A 19910802  |
|             |    |          | US 1993-923839  | A3 19930803 |
|             |    |          | US 1994-240360  | A3 19940510 |

PATENT FAMILY INFORMATION:

FAN 1993:539091

|    | PATENT NO. | KIND | DATE     | APPLICATION NO.   | DATE       |
|----|------------|------|----------|---|------------|
| PI | EP 526348  | A1   | 19930203 | EP 1992-402213  | 19920803   |
|    | EP 526348  | B1   | 19980218 | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE |            |
|    |            |      |          | FR 1991-9908  | A 19910802 |
|    | FR 2679903 | A1   | 19930205 | FR 1991-9908  | 19910802   |
|    | FR 2679903 | B1   | 19931203 |   |            |
|    | CA 2093221 | A1   | 19930203 | CA 1992-2093221   | 19920731   |
|    | CA 2093221 | C    | 19980922 |   |            |
|    | WO 9303013 | A1   | 19930218 | FR 1991-9908  | A 19910802 |
|    |            |      |          | WO 1992-FR758   | 19920731   |
|    |            |      |          | W: AU, BR, CA, CS, FI, HU, JP, KR, NO, RU                         |            |
|    |            |      |          | FR 1991-9908  | A 19910802 |
|    | AU 9224758 | A    | 19930302 | AU 1992-24758   | 19920731   |
|    | AU 658664  | B2   | 19950427 | FR 1991-9908  | A 19910802 |
|    |            |      |          | WO 1992-FR758   | A 19920731 |

|             |    |          |                 |             |
|-------------|----|----------|-----------------|-------------|
| ZA 9205781  | A  | 19930302 | ZA 1992-5781    | 19920731    |
|             |    |          | FR 1991-9908    | A 19910802  |
| BR 9205336  | A  | 19931116 | BR 1992-5336    | 19920731    |
|             |    |          | FR 1991-9908    | A 19910802  |
|             |    |          | WO 1992-FR758   | A 19920731  |
| JP 06501960 | T  | 19940303 | JP 1993-503337  | 19920731    |
|             |    |          | FR 1991-9908    | A 19910802  |
|             |    |          | WO 1992-FR758   | W 19920731  |
| LT 3064     | B  | 19941025 | LT 1992-114     | 19920731    |
|             |    |          | FR 1991-9908    | A 19910802  |
| LV 10091    | B  | 19950420 | LV 1992-87      | 19920731    |
|             |    |          | FR 1991-9908    | A 19910802  |
| HU 68927    | A2 | 19950828 | HU 1993-951     | 19920731    |
|             |    |          | FR 1991-9908    | A 19910802  |
| IL 102703   | A  | 19970318 | IL 1992-102703  | 19920731    |
|             |    |          | FR 1991-9908    | A 19910802  |
| JP 2633085  | B2 | 19970723 | JP 1992-503337  | 19920731    |
|             |    |          | FR 1991-9908    | A 19910802  |
| RU 2104268  | C1 | 19980210 | RU 1993-5168    | 19920731    |
|             |    |          | FR 1991-9908    | A 19910802  |
|             |    |          | WO 1992-FR758   | W 19920731  |
| IL 117592   | A  | 19990411 | IL 1992-117592  | 19920731    |
|             |    |          | FR 1991-9908    | A 19910802  |
|             |    |          | IL 1992-102703  | A3 19920731 |
| CZ 288173   | B6 | 20010516 | CZ 1993-682     | 19920731    |
|             |    |          | FR 1991-9908    | A 19910802  |
|             |    |          | CS 1993-682     | A 19920731  |
| CA 2206776  | C  | 20020226 | CA 1992-2206776 | 19920731    |
|             |    |          | FR 1991-9908    | A 19910802  |
|             |    |          | CA 1992-2093221 | A3 19920731 |
| SK 283463   | B6 | 20030805 | SK 1993-426     | 19920731    |
|             |    |          | FR 1991-9908    | A 19910802  |
|             |    |          | WO 1992-FR758   | W 19920731  |
| AT 163289   | T  | 19980315 | AT 1992-402213  | 19920803    |
|             |    |          | FR 1991-9908    | A 19910802  |
| ES 2117038  | T3 | 19980801 | ES 1992-402213  | 19920803    |
|             |    |          | FR 1991-9908    | A 19910802  |
| NO 9301262  | A  | 19930526 | NO 1993-1262    | 19930401    |
| NO 180047   | B  | 19961028 |                 |             |
| NO 180047   | C  | 19970205 |                 |             |
|             |    |          | FR 1991-9908    | A 19910802  |
|             |    |          | WO 1992-FR758   | W 19920731  |
| FI 104069   | B  | 19991115 | FI 1993-1476    | 19930401    |
| FI 104069   | B1 | 19991115 |                 |             |
|             |    |          | FR 1991-9908    | A 19910802  |
|             |    |          | WO 1992-FR758   | W 19920731  |
| US 5481005  | A  | 19960102 | US 1994-348150  | 19941128    |
|             |    |          | FR 1990-9778    | A 19900731  |
|             |    |          | US 1991-737655  | B2 19910730 |
|             |    |          | FR 1991-9908    | A 19910802  |
|             |    |          | US 1993-923839  | A3 19930803 |
|             |    |          | US 1994-240360  | A3 19940510 |
| AU 9511541  | A  | 19950504 | AU 1995-11541   | 19950203    |
| AU 691223   | B2 | 19980514 |                 |             |
|             |    |          | FR 1991-9908    | A 19910802  |
| HU 9500474  | A3 | 19951030 | HU 1995-474     | 19950628    |
|             |    |          | FR 1991-9908    | A 19910802  |
| FI 9800175  | A  | 19980127 | FI 1998-175     | 19980127    |
| FI 107048   | B1 | 20010531 |                 |             |
|             |    |          | FR 1991-9908    | A 19910802  |
|             |    |          | WO 1992-FR758   | W 19920731  |
|             |    |          | FI 1993-1476    | A 19930401  |

FAN 1995:777639  
PATENT NO.

KIND DATE

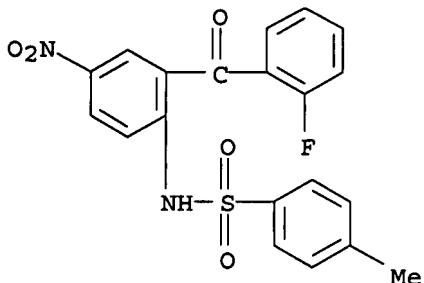
APPLICATION NO.

DATE

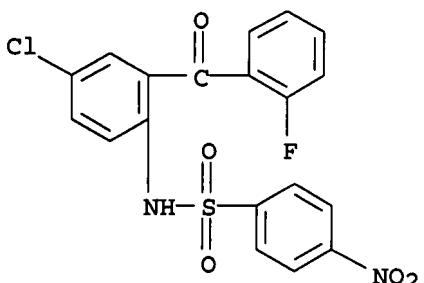
|             |            |    |          |                 |             |
|-------------|------------|----|----------|-----------------|-------------|
| PI          | US 5338755 | A  | 19940816 | US 1992-923839  | 19920803    |
|             |            |    |          | FR 1990-9778    | A 19900731  |
|             |            |    |          | US 1991-737655  | B2 19910730 |
|             |            |    |          | FR 1991-9908    | A 19910802  |
| FR 2665441  |            | A1 | 19920207 | FR 1990-9778    | 19900731    |
| FR 2665441  |            | B1 | 19921204 |                 |             |
| IL 114934   |            | A  | 19960804 | IL 1991-114934  | 19910730    |
|             |            |    |          | FR 1990-9778    | A 19900731  |
|             |            |    |          | IL 1991-99012   | A3 19910730 |
| HU 219351   |            | B  | 20010328 | HU 1971-99045   | 19910731    |
|             |            |    |          | FR 1990-9778    | A 19900731  |
|             |            |    |          | HU 1991-2552    | A 19910731  |
| FR 2679903  |            | A1 | 19930205 | FR 1991-9908    | 19910802    |
| FR 2679903  |            | B1 | 19931203 |                 |             |
| AU 9224758  |            | A  | 19930302 | AU 1992-24758   | 19920731    |
| AU 658664   |            | B2 | 19950427 |                 |             |
|             |            |    |          | FR 1991-9908    | A 19910802  |
|             |            |    |          | WO 1992-FR758   | A 19920731  |
| BR 9205336  |            | A  | 19931116 | BR 1992-5336    | 19920731    |
|             |            |    |          | FR 1991-9908    | A 19910802  |
|             |            |    |          | WO 1992-FR758   | A 19920731  |
| JP 06501960 |            | T  | 19940303 | JP 1993-503337  | 19920731    |
|             |            |    |          | FR 1991-9908    | A 19910802  |
|             |            |    |          | WO 1992-FR758   | W 19920731  |
| RU 2104268  |            | C1 | 19980210 | RU 1993-5168    | 19920731    |
|             |            |    |          | FR 1991-9908    | A 19910802  |
|             |            |    |          | WO 1992-FR758   | W 19920731  |
| IL 117592   |            | A  | 19990411 | IL 1992-117592  | 19920731    |
|             |            |    |          | FR 1991-9908    | A 19910802  |
|             |            |    |          | IL 1992-102703  | A3 19920731 |
| CZ 288173   |            | B6 | 20010516 | CZ 1993-682     | 19920731    |
|             |            |    |          | FR 1991-9908    | A 19910802  |
|             |            |    |          | CS 1993-682     | A 19920731  |
| CA 2206776  |            | C  | 20020226 | CA 1992-2206776 | 19920731    |
|             |            |    |          | FR 1991-9908    | A 19910802  |
|             |            |    |          | CA 1992-2093221 | A3 19920731 |
| SK 283463   |            | B6 | 20030805 | SK 1993-426     | 19920731    |
|             |            |    |          | FR 1991-9908    | A 19910802  |
|             |            |    |          | WO 1992-FR758   | W 19920731  |
| NO 9301262  |            | A  | 19930526 | NO 1993-1262    | 19930401    |
| NO 180047   |            | B  | 19961028 |                 |             |
| NO 180047   |            | C  | 19970205 |                 |             |
|             |            |    |          | FR 1991-9908    | A 19910802  |
|             |            |    |          | WO 1992-FR758   | W 19920731  |
| FI 104069   |            | B  | 19991115 | FI 1993-1476    | 19930401    |
| FI 104069   |            | B1 | 19991115 |                 |             |
|             |            |    |          | FR 1991-9908    | A 19910802  |
|             |            |    |          | WO 1992-FR758   | W 19920731  |
| US 5397801  |            | A  | 19950314 | US 1994-240360  | 19940510    |
|             |            |    |          | FR 1990-9778    | A 19900731  |
|             |            |    |          | US 1991-737655  | B2 19910730 |
|             |            |    |          | FR 1991-9908    | A 19910802  |
|             |            |    |          | US 1992-923839  | A3 19920803 |
| US 5481005  |            | A  | 19960102 | US 1994-348150  | 19941128    |
|             |            |    |          | FR 1990-9778    | A 19900731  |
|             |            |    |          | US 1991-737655  | B2 19910730 |
|             |            |    |          | FR 1991-9908    | A 19910802  |
|             |            |    |          | US 1993-923839  | A3 19930803 |
|             |            |    |          | US 1994-240360  | A3 19940510 |
| US 5578633  |            | A  | 19961126 | US 1995-458614  | 19950602    |
|             |            |    |          | FR 1990-9778    | A 19900731  |
|             |            |    |          | US 1991-737655  | B2 19910730 |
|             |            |    |          | FR 1991-9908    | A 19910802  |

|            |             |                |             |
|------------|-------------|----------------|-------------|
| FI 9800175 | A 19980127  | US 1992-923839 | A3 19920803 |
| FI 107048  | B1 20010531 | US 1994-240360 | A3 19940510 |
|            |             | US 1994-348150 | A3 19941128 |
|            |             | FI 1998-175    | 19980127    |
|            |             | FR 1991-9908   | A 19910802  |
|            |             | WO 1992-FR758  | W 19920731  |
|            |             | FI 1993-1476   | A 19930401  |

OS MARPAT 116:214341  
 AB Title compds. [I; R1 = halo, alkyl, alkoxy, PhCH<sub>2</sub>O, etc.; R2 = (cyclo)alkyl, cycloalkenyl, (substituted) Ph; R3 = H, alkyl; R4 = CO<sub>2</sub>H, alkoxy carbonyl, CO<sub>2</sub>CH<sub>2</sub>Ph, (substituted) CONH<sub>2</sub>; R5 = alkyl, naphthyl, (substituted) Ph, etc.; m, n = 0-2] were prepared. Thus, 4,2-Cl(R<sub>2</sub>CO)C<sub>6</sub>H<sub>3</sub>R (R<sub>2</sub> = cyclohexyl) (II; R = NH<sub>2</sub>) was condensed with 1-naphthylsulfonyl chloride and the product condensed with BrCH<sub>2</sub>CO<sub>2</sub>Et to give II [R = N(CH<sub>2</sub>CO<sub>2</sub>Et)SO<sub>2</sub>R<sub>5</sub>; R<sub>5</sub> = 1-naphthyl] which was treated with NaOMe/MeOH to give title compound III (cis and trans isomers). I had IC<sub>50</sub> of .apprx.10<sup>-7</sup>M against oxytocin binding with a membrane preparation from pregnant rats.  
 IT 94107-57-0P 140916-44-5P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and reaction of, in preparation of vasopressin and oxytocin receptor ligands)  
 RN 94107-57-0 CAPLUS  
 CN Benzenesulfonamide, N-[2-(2-fluorobenzoyl)-4-nitrophenyl]-4-methyl- (9CI)  
 (CA INDEX NAME)



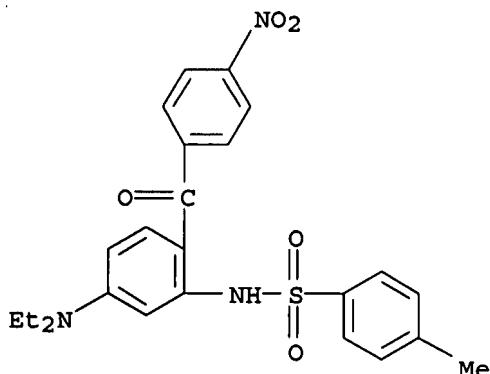
RN 140916-44-5 CAPLUS  
 CN Benzenesulfonamide, N-[4-chloro-2-(2-fluorobenzoyl)phenyl]-4-nitro- (9CI)  
 (CA INDEX NAME)



L24 ANSWER 11 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1990:79440 CAPLUS  
 DN 112:79440  
 TI Preparation of benzophenones as intermediates for fluorene phthalide dyes  
 IN Yanagihara, Naoto; Iwakura, Ken

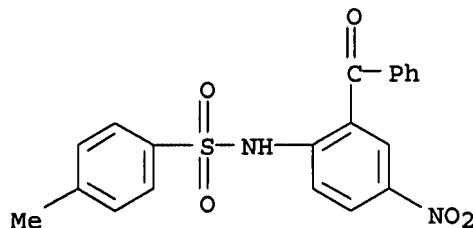
PA Fuji Photo Film Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

|    | PATENT NO.   | KIND | DATE     | APPLICATION NO.                | DATE                 |
|----|--|------|----------|--------------------------------|----------------------|
| PI | JP 01216942  | A    | 19890830 | JP 1988-41280<br>JP 1988-41280 | 19880224<br>19880224 |
| AB | Benzophenones, useful as intermediates for fluorene phthalide dyes used in recording materials, are prepared by treatment of nitrobenzoyl chlorides with m-phenylenediamines in the presence of Lewis catalysts. p-Nitrobenzoyl chloride was treated with AlCl <sub>3</sub> in 1,2-dichloroethane at room temperature for 1 h and treated with m-Et <sub>2</sub> NC <sub>6</sub> H <sub>4</sub> NHAc at room temperature for 5 h to give 51% corresponding benzophenone derivative |      |          |                                |                      |
| IT | 125317-21-7P<br>RL: IMF (Industrial manufacture); PREP (Preparation)<br>(preparation of, as intermediate for fluorene phthalide dyes)  |      |          |                                |                      |
| RN | 125317-21-7 CAPLUS   |      |          |                                |                      |
| CN | Benzenesulfonamide, N-[5-(diethylamino)-2-(4-nitrobenzoyl)phenyl]-4-methyl- (9CI) (CA INDEX NAME)  |      |          |                                |                      |

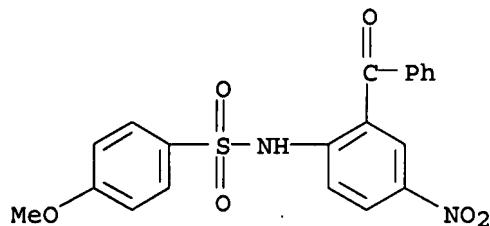


L24 ANSWER 12 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1989:477578 CAPLUS  
 DN 111:77578  
 TI Nucleophilic substitutions of bischloronitroso compounds. IV.  
 Sulfonylamino oximes as extracting agents for copper(II)  
 AU Beger, J.; Neumann, R.; Gloe, K.; Muhl, P.  
 CS Sekt. Chem., Bergakad. Freiberg, Freiberg, DDR-9200, Ger. Dem. Rep.  
 SO Journal fuer Praktische Chemie (Leipzig) (1988), 330(5), 683-94  
 CODEN: JPCEAO; ISSN: 0021-8383  
 DT Journal  
 LA German  
 OS CASREACT 111:77578  
 AB RSO<sub>2</sub>NR<sub>1</sub>CR<sub>2</sub>R<sub>3</sub>CR<sub>4</sub>:NOH [I; R = Ph, 4-MeC<sub>6</sub>H<sub>4</sub>, Me, hexyl, 4-Me(CH<sub>2</sub>)<sub>4</sub>OCH<sub>2</sub>CH<sub>3</sub>; R<sub>1</sub>, R<sub>4</sub> = H, Me; R<sub>2</sub> = R<sub>3</sub> = Me; R<sub>2</sub> = H, R<sub>3</sub>R<sub>4</sub> = (CH<sub>2</sub>)<sub>n</sub>, hexene-1,6-diyl, cyclopentane-1,3-diyl, decadiene-1,1-diyl; n = 3, 4, 6, 10] were obtained by treating RSO<sub>2</sub>NHR<sub>1</sub> with ClCR<sub>2</sub>R<sub>3</sub>CHR<sub>4</sub>:NOH or ClCR<sub>2</sub>R<sub>3</sub>CHR<sub>4</sub>N(O):N(O)CHR<sub>4</sub>CR<sub>2</sub>R<sub>3</sub>Cl. 4-R<sub>5</sub>C<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>NHC<sub>6</sub>H<sub>4</sub>(Bz)R<sub>6</sub>-2,4 [R<sub>5</sub> = Et, OMe, OEt, O(CH<sub>2</sub>)<sub>4</sub>Me, O(CH<sub>2</sub>)<sub>9</sub>Me; R<sub>6</sub> = H, NO<sub>2</sub>] were prepared by sulfonating the amines and were converted to their oximes. Several I extracted Cu efficiently from solution  
 IT 24042-91-9P 121779-69-9P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and oximation of)

RN 24042-91-9 CAPLUS  
CN Benzenesulfonamide, N-(2-benzoyl-4-nitrophenyl)-4-methyl- (9CI) (CA INDEX NAME)



RN 121779-69-9 CAPLUS  
CN Benzenesulfonamide, N-(2-benzoyl-4-nitrophenyl)-4-methoxy- (9CI) (CA INDEX NAME)



L24 ANSWER 13 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1988:131304 CAPLUS

DN 108:131304

TI 2-Arylsulfonamidobenzophenones and -acetophenones and their oximes

IN Schewe, Tankred; Rapoport, Samuel Mitja; Beger, Joerg; Kuehn, Hartmut; Binte, Hans Joachim; Slapke, Juergen

PA VEBahlberg-List, Ger. Dem. Rep.

SO Ger. Offen., 44 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

|    | PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE        |
|----|------------|------|----------|-----------------|-------------|
| PI | DE 3544409 | A1   | 19861016 | DE 1985-3544409 | 19851216    |
|    |            |      |          | DD 1984-271462  | A2 19841221 |
|    | DD 251126  | A1   | 19871104 | DD 1984-271462  | 19841221    |
|    | CH 670389  | A5   | 19890615 | CH 1985-5505    | 19851223    |
|    |            |      |          | DD 1984-271462  | A 19841221  |

OS CASREACT 108:131304; MARPAT 108:131304

AB The title compds. (I; R = Me, Ph, p-substituted Ph; R1 = H, alkyl, alkoxy, amino, acylamino; R2 = H, halo, NO<sub>2</sub>, amino, acylamino; X = O, oximino) were prepared as lipoxygenase and cyclooxygenase inhibitors. Thus, 0.02 mol 2-(p-methoxybenzenesulfonamido)acetophenone in EtOH was treated with 0.044 mol NH<sub>2</sub>OH.HCl in pyridine and the mixture was refluxed for 3 h to give 90% I (R = Me, R1 = 4-MeO, X = NOH, R2 = H) which at 50 μM showed 80% inhibition of arachidonic acid-induced contractions in guinea pigs vs. 30% for benoxaprofen.

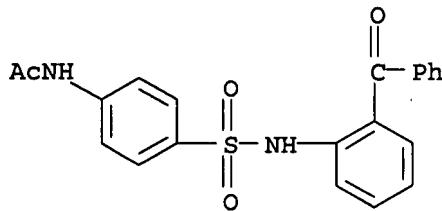
IT 107506-26-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, as cyclooxygenase and lipoxygenase inhibitor)

RN 107506-26-3 CAPLUS

CN Acetamide, N-[4-[[[2-benzoylphenyl]amino]sulfonyl]phenyl]- (9CI) (CA

INDEX NAME)



L24 ANSWER 14 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1984:34519 CAPLUS

DN 100:34519

TI Heterocyclic syntheses via carbanionically induced rearrangement reactions

AU Hellwinkel, Dieter; Lenz, Ruediger; Laemmerzahl, Frank

CS Org. Chem. Inst., Univ. Heidelberg, Heidelberg, D-6900/1, Fed. Rep. Ger.

SO Tetrahedron (1983), 39(12), 2073-84

CODEN: TETRAB; ISSN: 0040-4020

DT Journal

LA English

OS CASREACT 100:34519

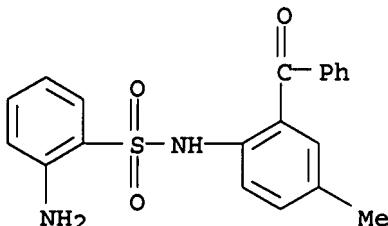
AB The easily occurring [1.3]-migrations of sulfonyl and carbonyl functions to neighboring Ph anions can be utilized for ring expansions by one benzo unit when suitably tailored precursor heterocycles are used. Thus, 1,2-benzisothiazole dioxide I can be transformed into dibenzothiazepine dioxide II, whereas dibenzo- and 1,2,4-benzothiazin dioxides III and IV, resp., give rise to tribenzothiazocin dioxide V and dibenzothiadiazocine dioxide VI, resp. Unexpected formations of heterocyclic systems, namely, spiroisoindolobenzoxazinobenzofuran VII, 3,1-benzoxazin VIII, and phenanthridinium salt IX took place when N-(2-bromo-4-methylphenyl)phthalimide, 2,4-BrMeC<sub>6</sub>H<sub>3</sub>NBz<sub>2</sub>, and o-PhC<sub>6</sub>H<sub>4</sub>NMeCOC<sub>6</sub>H<sub>4</sub>Me-p were reacted with Me<sub>3</sub>CLi.

IT 88312-94-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 88312-94-1 CAPLUS

CN Benzenesulfonamide, 2-amino-N-(2-benzoyl-4-methylphenyl)- (9CI) (CA INDEX NAME)



L24 ANSWER 15 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1980:639482 CAPLUS

DN 93:239482

TI 7-Amino-5-phenyl-1,4-3H-benzodiazepin-2-(1H)-one

IN Christensen, Svend Aage

PA A/S Dumex, Den.

SO Dan., 6 pp.

CODEN: DAXXAF

DT Patent

LA Danish

FAN.CNT 1

|    | PATENT NO. | KIND | DATE     | APPLICATION NO.               | DATE                   |
|----|------------|------|----------|-------------------------------|------------------------|
| PI | DK 142030  | B    | 19800811 | DK 1971-1079<br>GB 1970-13636 | 19710309<br>A 19700320 |
|    | SE 384859  | C    | 19780921 | SE 1971-3442<br>GB 1970-13636 | 19710317<br>A 19700320 |
|    | NO 134158  | C    | 19791019 | NO 1971-1059<br>GB 1970-13636 | 19710318<br>A 19700320 |

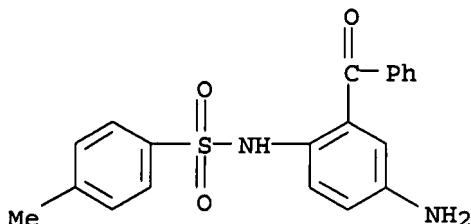
AB The title compound (I) was prepared by tosylating 2,4-Bz(O<sub>2</sub>N)C<sub>6</sub>H<sub>3</sub>NH<sub>2</sub>, reducing 2,4-Bz(O<sub>2</sub>N)C<sub>6</sub>H<sub>3</sub>NHSO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>Me-4, treating the amine with phthalic anhydride, detosylating II (R = SO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>Me-4), treating II (R = H) with phthalylglycyl chloride, and cyclizing II (R = phthalimidoacetyl) with N<sub>2</sub>H<sub>4</sub>.

IT 37020-30-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and reaction of, with phthalic anhydride)

RN 37020-30-7 CAPLUS

CN Benzenesulfonamide, N-(4-amino-2-benzoylphenyl)-4-methyl- (9CI) (CA INDEX NAME)

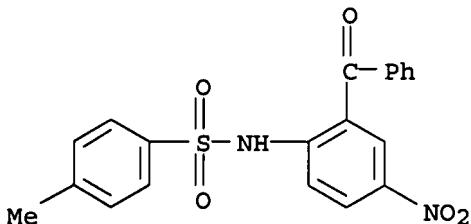


IT 24042-91-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and reduction of)

RN 24042-91-9 CAPLUS

CN Benzenesulfonamide, N-(2-benzoyl-4-nitrophenyl)-4-methyl- (9CI) (CA INDEX NAME)



L24 ANSWER 16 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1972:462035 CAPLUS

DN 77:62035

TI Benzophenone derivative and its conversion to a benzodiazepine derivative

IN Christensen, Svend Age

PA Aktieselskabet Dumex (Dumex Ltd.)

SO Brit., 5 pp.

CODEN: BRXXAA

DT Patent

LA English

FAN.CNT 1



and 23.9 g o-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>Cl in 50 ml pyridine was refluxed .apprx.1 hr to give 35.2 g 2'-benzoyl-4-chloro-2-nitrobenzenesulfonanilide, which was reduced (Fe powder) then treated with p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H to give I (R = R<sub>1</sub> = R<sub>2</sub> = H, R<sub>3</sub> = 2-Cl). Other I (.apprx.3) were prepared, and many other I were cited.

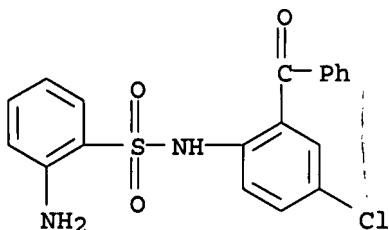
IT 20434-81-5P 20434-83-7P 20434-84-8P

20594-91-6P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

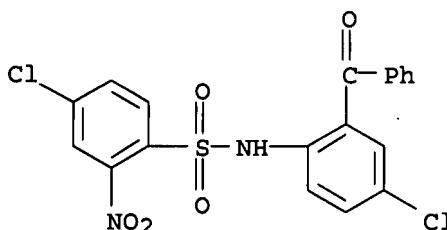
RN 20434-81-5 CAPLUS

CN Benzenesulfonanilide, 2-amino-2'-benzoyl-4'-chloro- (8CI) (CA INDEX NAME)



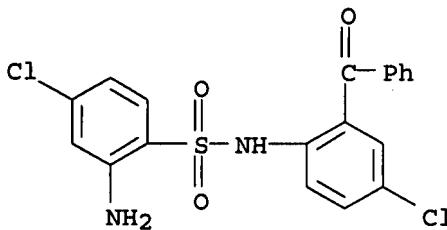
RN 20434-83-7 CAPLUS

CN Benzenesulfonanilide, 2'-benzoyl-4,4'-dichloro-2-nitro- (8CI) (CA INDEX NAME)



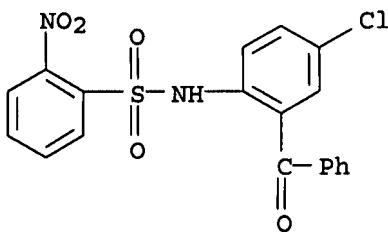
RN 20434-84-8 CAPLUS

CN Benzenesulfonanilide, 2-amino-2'-benzoyl-4,4'-dichloro- (8CI) (CA INDEX NAME)



RN 20594-91-6 CAPLUS

CN Benzenesulfonamide, N-(2-benzoyl-4-chlorophenyl)-2-nitro- (9CI) (CA INDEX NAME)



L24 ANSWER 18 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1969:523960 CAPLUS

DN 71:123960

TI 2-Amino-5-nitrobenzophenone

IN Podesva, Ctirad; Kohan, Geza

PA Delmar Chemicals Ltd.

SO Ger. Offen., 11 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

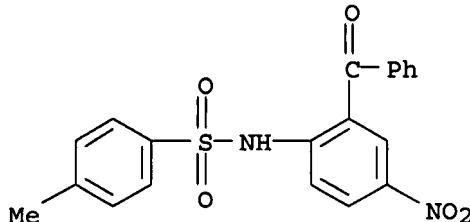
|    | PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE       |
|----|------------|------|----------|-----------------|------------|
| PI | DE 1811785 | B2   | 19760122 | DE 1968-1811785 | 19681129   |
|    | DE 1811785 | C3   | 19760902 | CA 1967-6408    | A 19671129 |
|    | CA 904344  | A    | 19720704 | CA 1967-6408    | A 19671129 |
|    | NO 130475  | B    | 19740909 | NO 1968-4688    | 19681125   |
|    |            |      |          | CA 1967-6408    | A 19671129 |
|    | NL 6816857 | A    | 19690602 | NL 1968-16857   | 19681126   |
|    |            |      |          | CA 1967-6408    | A 19671129 |
|    | CH 512447  | A    | 19710915 | CH 1968-512447  | 19681126   |
|    |            |      |          | CA 1967-6408    | A 19671129 |
|    | US 3585238 | A    | 19710615 | US 1968-779623  | 19681127   |
|    |            |      |          | CA 1967-6408    | A 19671129 |
|    | SE 367185  | B    | 19740520 | SE 1968-16269   | 19681128   |
|    |            |      |          | CA 1967-6408    | A 19671129 |
|    | DK 129832  | B    | 19741125 | DK 1968-5815    | 19681128   |
|    |            |      |          | CA 1967-6408    | A 19671129 |
|    | SE 386667  | B    | 19760816 | SE 1968-386667  | 19681128   |
|    |            |      |          | CA 1967-6408    | A 19671129 |
|    | AT 289768  | B    | 19710510 | AT 1968-11630   | 19681129   |
|    |            |      |          | CA 1967-6408    | A 19671129 |
|    | CS 149650  | B2   | 19730725 | CS 1968-8172    | 19681129   |
|    |            |      |          | CA 1967-6408    | A 19671129 |
|    | FI 51473   | B    | 19760930 | FI 1968-3414    | 19681129   |
|    |            |      |          | CA 1967-6408    | A 19671129 |
|    | NO 130431  | B    | 19740902 | NO 1970-1966    | 19700522   |
|    |            |      |          | CA 1967-6408    | A 19671129 |
|    |            |      |          | NO 1968-4688    | A 19681125 |

AB The title compound (I) was prepared in good yield, without using unduly high temperature or high pressure. A mixture of 104.6 g.

2-chloro-5-nitrobenzophenone,

231.6 g. Na salt of p-MeC<sub>6</sub>H<sub>4</sub>-SO<sub>2</sub>NH<sub>2</sub>, and 500 ml. HCONMe<sub>2</sub> was heated at 160-70° with stirring 6 hrs., the mixture cooled, poured into 2 kg. ice and extracted with CHCl<sub>3</sub>, the extract washed with water, and the solvent distilled to give 2-(p-toluenesulfonamido)-5-nitrobenzophenone (II), m. 123-5° (MeOH). II (122.5 g.) was hydrolyzed by concentrated H<sub>2</sub>SO<sub>4</sub> at .apprx.55° 30 min. to yield I, m. 162-3° (C<sub>6</sub>H<sub>6</sub>). Reaction of I with phthalimidoacetyl chloride and treatment of the product with N<sub>2</sub>H<sub>4</sub>.H<sub>2</sub>O gave 7-nitro-5-phenyl-3H-1,4-benzodiazepin-2(1H)-one, a very important psychotropic agent with relatively low toxicity.

IT 24042-91-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 24042-91-9 CAPLUS  
 CN Benzenesulfonamide, N-(2-benzoyl-4-nitrophenyl)-4-methyl- (9CI) (CA INDEX NAME)



L24 ANSWER 19 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1968:477247 CAPLUS  
 DN 69:77247

TI Preparation of 2H-1,2,3-benzothiadiazine 1,1-dioxides,  
 11H-11,11a-dihydrobenzimidazo[1,2-b][1,2]benzisothiazole 5,5-dioxides,  
 6H-dibenzo[c,g][1,2,5]thiadiazocine 5,5-dioxides and 5H-  
 dibenzo[c,g][1,2,6]thiadiazocine 6,6-dioxides

AU Wright, John B.

CS Upjohn Co., Kalamazoo, MI, USA

SO Journal of Heterocyclic Chemistry (1968), 5(4), 453-9  
 CODEN: JHTCAD; ISSN: 0022-152X

DT Journal

LA English

OS CASREACT 69:77247

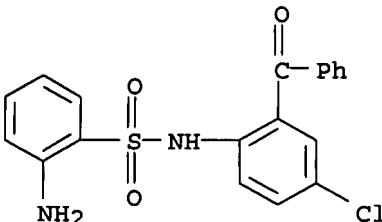
AB o-Benzoylbenzenesulfonyl chlorides (I) were prepared conveniently from aminobenzophenones by diazotization followed by reaction with SO<sub>2</sub> in the presence of Cu<sup>+</sup>, according to the general method of Meerwein. Reaction of I with hydrazine led to 4-phenyl-2H-1,2,3-benzothiadiazine 1,1-dioxides, which could be methylated and acetylated readily in the 2-position. The 2-methyl derivative was prepared by reaction of I with methylhydrazine. Catalytic hydrogenation of 6-chloro-4-phenyl-2H-1,2,3-benzothiadiazine 1,1-dioxide gave the 3,4-dihydro derivative. Reaction of I with o-phenylenediamine followed by cyclodehydration gave 11H-11,11a-dihydrobenzimidazo[1,2-b]-[1,2]benzisothiazole 5,5-dioxides (II). One of the II derivs. in NaOH solution in the presence of MeI or benzyl chloride was transformed into 6-methyl- and 6-benzyl-5H-dibenzo[c,g][1,2,6]thiadiazocine 5,5-dioxide (III), resp. 5H-Dibenzo[c,g][1,2,6]thiadiazocine 6,6-dioxides were prepared also by cyclodehydration of 2-amino-2'-benzoylbenzenesulfonanilides.

IT 20434-81-5P 20434-83-7P 20434-84-8P  
 20594-91-6P

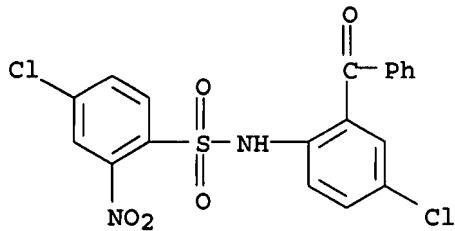
RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 20434-81-5 CAPLUS

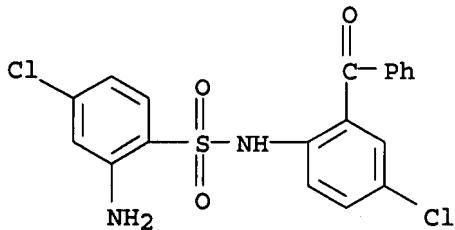
CN Benzenesulfonanilide, 2-amino-2'-benzoyl-4'-chloro- (8CI) (CA INDEX NAME)



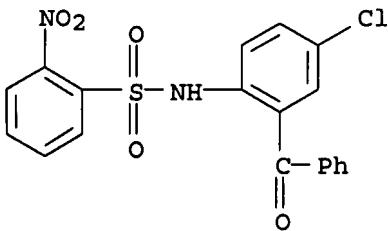
RN 20434-83-7 CAPLUS  
CN Benzenesulfonanilide, 2'-benzoyl-4,4'-dichloro-2-nitro- (8CI) (CA INDEX NAME)



RN 20434-84-8 CAPLUS  
CN Benzenesulfonanilide, 2-amino-2'-benzoyl-4,4'-dichloro- (8CI) (CA INDEX NAME)



RN 20594-91-6 CAPLUS  
CN Benzenesulfonamide, N-(2-benzoyl-4-chlorophenyl)-2-nitro- (9CI) (CA INDEX NAME)



L24 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1953:27210 CAPLUS

DN 47:27210

OREF 47:4622h-i,4623a-d

TI Anthraquinone vat dyes

PA C I B A Ltd.

DT Patent

LA Unavailable

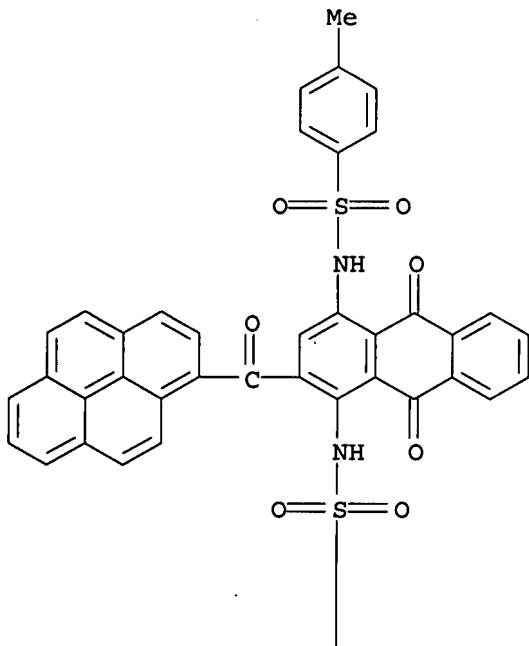
FAN.CNT 1

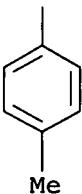
|    | PATENT NO.   | KIND  | DATE     | APPLICATION NO. | DATE     |
|----|--|-------|----------|-----------------|----------|
| PI | GB 680857  | ----- | 19521015 | GB 1950-18322   | 19500721 |
| AB | A new series of anthraquinone vat dyes suitable for drying and printing cellulose fibers is obtained by heating 2 mols. 1,4-diaminoanthraquinonyl 2-aryl ketone with 1 mol. of an aromatic dicarboxylic acid dichloride. Thus, fluoranthenedicarboxylic acid dichloride (I) 3.2, 1,4-diamino-2-(p-chlorobenzoyl)anthraquinone (II) 8, quinoline 5, and pyridine 5 in C6H3Cl3 225 parts, heated with stirring during 3 hrs. up to |       |          |                 |          |

160° followed by further heating for 0.5 hr., gave gray needles, yellowish olive in concentrated H<sub>2</sub>SO<sub>4</sub>, dyes cotton from an olive-green vat bluish gray tints fast to Cl, boiling, and light, and having a very high tinctorial strength in printing. An analogous new dye was obtained from I and the 3,4-dichlorobenzoyl analog of II, dyes vegetable fibers from a green vat bluish gray tints. Similar vat dyes were prepared by condensing similarly 3,9-benzanthronedicarboxylic acid dichloride (from the acid and SOCl<sub>2</sub>) with II, dyes gray tints from an olive-green vat; and (p-ClCO<sub>2</sub>H)<sub>2</sub> with II, dyes cotton very fast reddish blue tints. To 1,4-dichloro-2-anthraquinonecarbonyl chloride (III) 34 and pyrene 20 in o-C<sub>6</sub>H<sub>4</sub>Cl<sub>2</sub> 250 was slowly added with stirring at 40-50° AlCl<sub>3</sub> 55, the mixture stirred 2 hrs. at 40-50° and then 1 hr. at 60-5° and decomposed with ice and HCl, the solvent removed by steam distillation, and the residue filtered off and washed with dilute aqueous Na<sub>2</sub>CO<sub>3</sub> to leave 1,4-dichloro-2-(3-pyrenoyl)anthraquinone (IV), 47 parts, brown powder, m. 249° (from o-C<sub>6</sub>H<sub>4</sub>Cl<sub>2</sub>). IV 15, p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>NH<sub>2</sub> 140, NaOAc 22, Cu(OAc)<sub>2</sub> 0.5, and CuCl 0.5 parts, heated with stirring 1 hr. at 170-5°, and the mixture poured into H<sub>2</sub>O and boiled gave 1,4-bis(p-tolylsulfonamido)-2-(3-pyrenoyl)anthraquinone (V), brown crystalline powder. V 17 stirred 10 hrs. at 0-5° with 99% HF 150 parts, and the mixture diluted with ice and H<sub>2</sub>O gave 1,4-diamino-2-(3-pyrenoyl)-anthraquinone (VI), green-blue crystalline powder from PhCl, soluble in Me<sub>2</sub>CO with a blue color. 1,4-Diamino-2-naphthoylanthraquinone (VII), was prepared by a similar sequence of reactions from III 69, C<sub>10</sub>H<sub>8</sub> 150, and AlCl<sub>3</sub> 81 in o-C<sub>6</sub>H<sub>4</sub>Cl<sub>2</sub> 150 parts, via 1,4-dichloro-2-naphthoylanthraquinone, m. 214° (from o-C<sub>6</sub>H<sub>4</sub>Cl<sub>2</sub>-toluene). Vat dyes were also obtained by the condensation of VII and I, blue-gray dyeing from a dull green vat; VII and (m-HO<sub>2</sub>CC<sub>6</sub>H<sub>4</sub>N<sub>+</sub>)<sub>2</sub>, blue dyeing from a green-olive vat; and VI and (p-HO<sub>2</sub>CC<sub>6</sub>H<sub>4</sub>N<sub>+</sub>)<sub>2</sub>, gray dyeing from a green-olive vat.

IT 874514-29-1P, p-Toluenesulfonamide, N,N'[2-(3-pyrenylcarbonyl)-1,4-anthraquinonylene]bis-  
RL: PREP (Preparation)  
(preparation of)  
RN 874514-29-1 CAPLUS  
CN p-Toluenesulfonamide, N,N'[2-(3-pyrenylcarbonyl)-1,4-anthraquinonylene]bis-(5CI) (CA INDEX NAME)

PAGE 1-A





L24 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1952:53273 CAPLUS

DN 46:53273

OREF 46:8866b-h

TI Bis(1,4-diamino-2-arylcarbonylanthraquinone)amides of aromatic dicarboxylic acids

IN Moergeli, Eduard

PA C I B A Ltd.

DT Patent

LA Unavailable

FAN.CNT 1

|    | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|----|--|------|----------|-----------------|----------|
| PI | US 2598587   |      | 19520527 | US 1950-174362  | 19500717 |
| AB | Vat dyes are prepared by treating 2 mols. of a 1,4-diamino-2-anthraquinonyl 2-aryl ketone, of which the aryl radical may contain substituents, with one mol. of a reactive derivative of an aromatic dicarboxylic acid. A mixture of 3.2 parts of fluoranthenedicarbonyl dichloride (I) (British patent 533,963 (C.A. 36, 1190.7)), 1,4-diamino-2-(p-chlorobenzoyl)anthraquinone (II) 8, quinoline 5, pyridine 5, and 225 parts by volume of trichlorobenzene (III) are heated to 160° while stirring in the course of 3 hrs. Stirring is continued 1/2 hr. and a dye seps. in the form of gray needles. The dye is soluble in concentrated H <sub>2</sub> SO <sub>4</sub> with a yellowish olive color; dyes cotton from an olive-green vat a blueish gray tint which is fast to Cl, boiling, and light, and has a good strength in prints. It similarly reacts with 1,4-diamino-2-(3,4-dichlorobenzoyl)anthraquinone in a mixture of quinoline and III at 160° to give a more bluish tinted gray dye than that above. 6-bz-1-Benzanthronedicarbonyl dichloride and 1,4-diamino-2-(p-chlorobenzoyl)anthraquinone gives a dye coloring cotton fast gray tints from an olive-green vat. 4,4'-Biphenyldicarbonyl chloride (IV) and 1,4-diamino-2-(p-chlorobenzoyl)anthraquinone give a cotton vat dye of reddish blue tint. Use of terephthalic acid dichloride in place of IV in the last example gives a blue dye. Other vat dyes prepared from 2 mols of an anthraquinone component and 1 mol. of acid component are as follows: II and 4,4'-azobenzenedicarboxylic acid (V) give a gray; II and 3,3'-azobenzenedicarboxylic acid (VI) give a reddish blue; II and 2,6-naphthalenedicarboxylic acid give a reddish blue; II and thianthrenedicarboxylic acid (U.S. patent 2,338,516 (C.A. 38, 3851.2)) give a reddish blue; II and 2,6-benzanthronedicarboxylic acid give a reddish blue-gray; II and 2,-8-chrysenedicarboxylic acid give a violet-gray; 1,4-di-amino-2-benzoylanthraquinone and I give a bluish gray; 1,4-diamino-2-p-tolylanthraquinone and I give a gray; 1,4-diamino-2-anisoylanthraquinone and I give a gray; 1,4-diamino-2-naphthoylanthraquinone (VII) and I give a blue-gray; VII and VI give a blue; 1,4-diamino-2-(3-pyrenoyl)-anthraquinone (VIII) and V give a gray. VIII is prepared as follows: 1,4-dichloro-2-(3-pyrenecarbonyl)anthraquinone (IX), brown powder, m. 249° (after crystallization from o-dichlorobenzene) is prepared by the action of AlCl <sub>3</sub> on 1,4-dichloro-2-anthraquinonecarbonyl chloride (X) and pyrene. IX 15 parts, p-toluenesulfonamide (XI) 140, |      |          |                 |          |

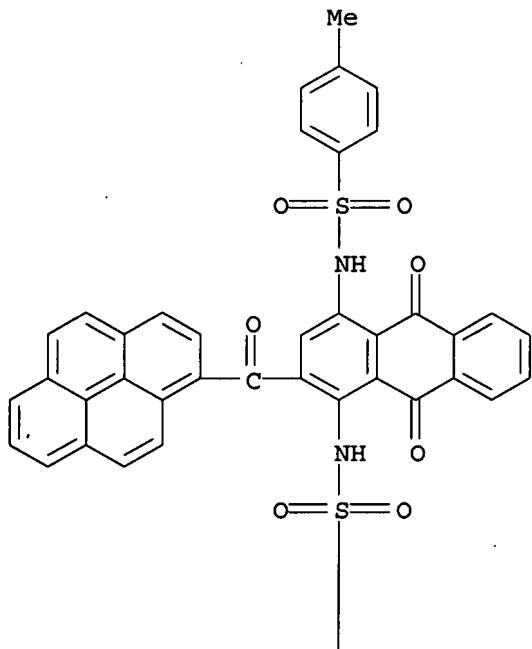
NaOAc 22, Cu(OAc)<sub>2</sub> 0.5, and Cu<sub>2</sub>Cl<sub>2</sub> 0.5 are heated 1 hr. at 170-5°, the water-soluble constituents are extracted with boiling water. The product is crystallized from aqueous pyridine to give a brown crystallization powder of 1,4-bis(p-tolylsulfonamido)-2-(3-pyrenecarbonyl)anthraquinone (XII). XII is hydrolyzed in 99% HF 150 by stirring 10 hrs. at 0-5°. VIII is then precipitated by addition of ice and water and is purified by extracting with boiling aqueous NH<sub>3</sub> solution; then crystallizing from chlorobenzene. VIII is an acetone-soluble, blue-green crystallization powder. VII is prepared by the action of AlCl<sub>3</sub> on X and naphthalene to give, first 1,4-dichloro-2-naphthoylanthraquinone, m. 214°, which is then treated as above with XI and then hydrolyzed to give VII.

IT 874514-29-1P, p-Toluenesulfonamide, N,N' [2-(3-pyrenylcarbonyl)-1,4-anthraquinonylene]bis-  
 RL: PREP (Preparation)  
 (preparation of)

RN 874514-29-1 CAPLUS

CN p-Toluenesulfonamide, N,N' [2-(3-pyrenylcarbonyl)-1,4-anthraquinonylene]bis-(5CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

